GENERAL ZOOLOGY

SYSTEMATIC [redacted]AL HISTORY

by

GEORGE SHAW, M.D. F.R.S.&c.

WITH PLATES

from the first Authorities and most select specimens

Engraved principally by

Mr HEATH

VOL. II. Part 2.

MAMMALIA

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CONTENTS

OF 154.D.5

VOL. II.—PART II.

ARGALI . . 379

ANTILOPE GENUS . 308

Antilope, common . 336
——— Egyptian . 312
——— white . . 315
——— Algazel . 316
——— Indian . . 319
——— Ourebi . . 320
——— Klipspringer 321
——— harnessed . 322
——— Guinea . . 324
——— Pygmy . . 326
——— Nilghau . 327
——— Indostan . 329
——— Cervine . . 331
——— striped . . 334
——— Gambian . 338
——— Saiga . . 339
——— Chinese . . 342
——— Guldenstedt's 343
Antilope, Springer . 344
——— Ritbock . 348
——— cinereous . 349
——— Barbary . 350
——— flat-horned . 351
——— white-faced . 352
——— Corine . . 353
——— Sumatran . 354
——— blue . . 355
——— Gnou . . 357
——— Nanguer . 359
——— red . . 361

Ass 429

Axis, middle . . 286
——— spotted . . 285

BALÆNA GENUS . . 478

BOS GENUS . . 393

Beluga . . . 515

Cachalot . . . 497

CAMELUS GENUS . 229

CAMELOPARDALIS GENUS 303

CAPRA GENUS . . 364

CERVUS GENUS . . 261

Camel, Arabian . . 229
——— Bactrian . 239
——— Glama . . 241
——— Vicuna . . 243
——— Paco . . 245
——— Guanaco . 246
——— Chilihuque . 248

Deer, fallow . . 282
—— Virginian . . 284
—— porcine . . 290
—— rib-faced . . 301
—— grey . . 302
—— Elk . . 261
—— Stag . . 276
—— Rein . . 269
—— Roe . . 291
—— tailless . . 287
—— Mexican . . 289
—— Indian . . 289

DOLPHIN GENUS . 504
——— narrow-snouted 514
——— bident . 514

Dolphin, Porpesse . 504
——— Grampus . 513
——— Beluga . 515

Dromedary . . 239

EQUUS GENUS . . 419

Giraffe . . . 303

Goat, common . . 369
—— Syrian . . 374
—— Angora . . 375
—— African . . 475
—— long-horned . 377
—— Capricorn . . 377
—— Whidaw . . 376
—— Ibex . . 364
—— Caucasan . . 367

Glama . . . 241

Guanaco . . . 246

HOG GENUS . . 458
—— common . . 459
—— Æthiopian . 464
—— Cape Verd . . 466
—— Babyroussa . 467
—— Pecary . . 469

Hippopotamus . . 443

Horse, common . . 419
——— Jickta . . 427
——— Ass . . 429

Horse, Zebra . . 438
——— Quagga . . 440
——— cloven-hoofed 441

Ibex 364
—— Caucasan . . 367

Monodon genus . 472

Moschus genus . 249

Musk, Tibetian . . 249
——— Indian . . 253
——— Pygmy . . 254
——— Meminna . 256
——— Java . . 257
——— American . 258
——— Leverian . 259

Mysticete, great . . 478
——— fin-backed . 490
——— pike-headed 490
——— bunched . 494
——— under-jawed 495
——— rostrated . 496

Narwhal, Unicorn . 473
——— spurious . 474

Ox genus . . 393
—— Bison . . 393
—— common . . 397
—— Indian . . 399
—— Zebu . . 399
—— loose-horned . 399
—— Boury . . 400
Ox, Tinian . . 400
—— Arnee . . 400
—— Buffalo . . 401
—— Musk . . 407
—— Yak . . . 411
—— Cape . . . 416

Pecary . . . 469

Porpesse . . . 504

Physeter genus . 497
——— blunt-headed 497
——— small . . 501
——— small-eyed . 502
——— high-finned 503

Pudu 392

Sheep genus . . 379
—— wild . . 379
—— bearded . . 383
—— common . . 385
—— Cretan . . 388
—— many-horned . 388
—— African . . 389
—— broad-tailed . 389
—— fat-rumped . 390
—— hornless . . 391
—— Pudu . . 392

Tapir . . . 449

Vicuna . . . 243

Whales . . . 471

Note to the Article PLATYPUS, *vol. I. p.* 232.

On laying open the parts beyond the base of the bill, it appears that the Platypus, like the Ant-Eaters, is furnished with small bony processes resembling grinding-teeth, imbedded in the gum, but not fastened or rooted in the jaw: of these processes there are two on each side both of the upper and under jaw.—*See a paper on this subject by Mr. E. Home, in the* 90*th volume of the Philosophical Transactions.*

ERRATUM.—PART II.

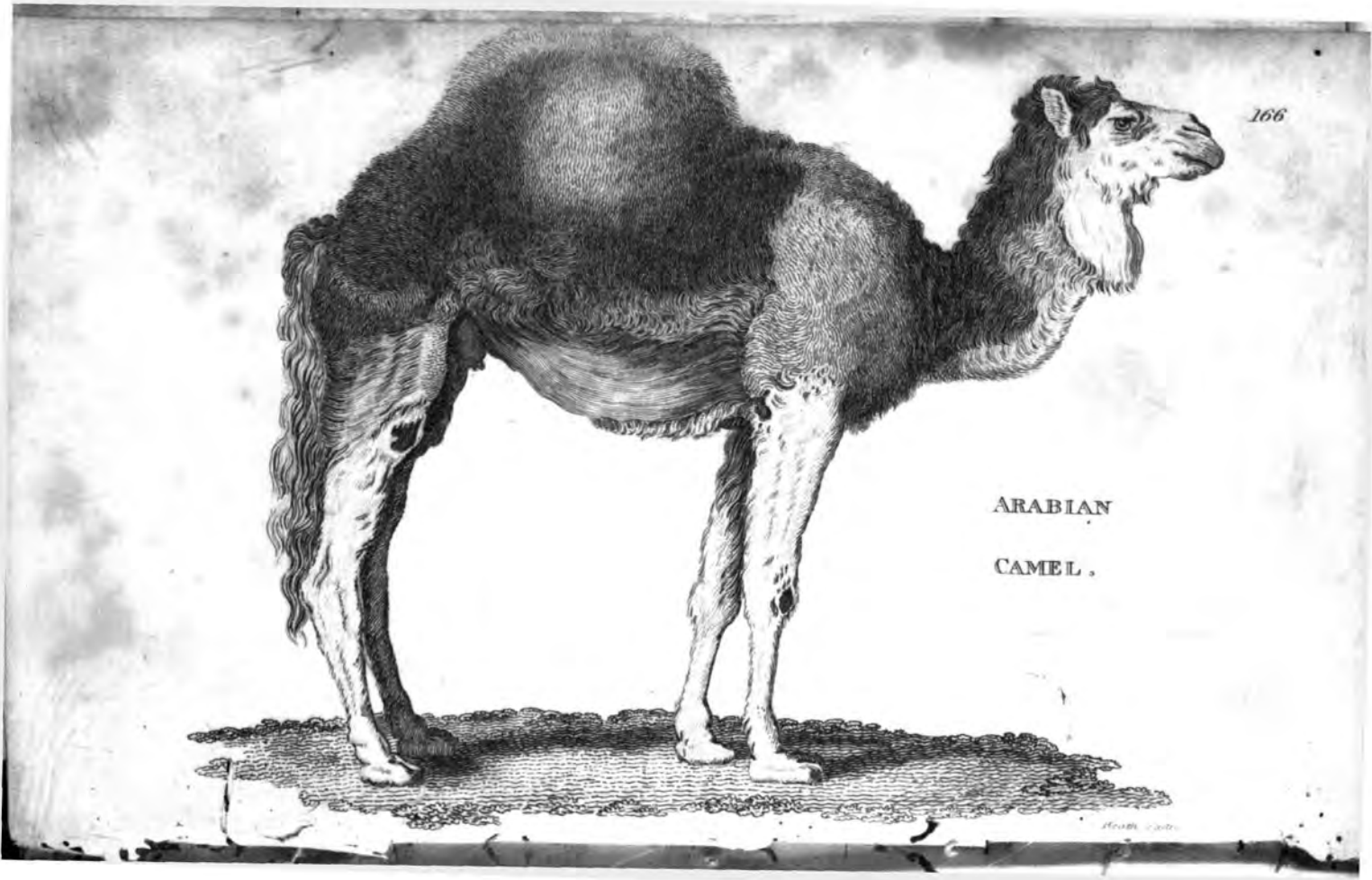
P. 271. l. 5. The figure here said to be taken from Ridinger, is in reality from Buffon only; Ridinger's figure representing the animal in a galloping posture, which is not its natural one.

Directions for placing the Plates in vol. II. part II.

The Vignette to Part II. represents the Pygmy Antelope.—P. 326.

Plate 166 to face page 229
167 —— 239
168 —— 241
169 —— 246
170 —— 247
171 —— 249
172 —— 254
173 —— 256
174 —— 261
175 —— 262
176 —— 269
177 —— 276
178 —— 282
179 —— 283
180 —— 285
181 —— 303
182 —— 306
183 —— 312
184 —— 315
185 —— 319
186 —— 322
187 —— 324
188 —— 326
189 —— 327
190 —— 329
191 —— 336
192 —— 344
193 —— 347
194 —— 351
194* —— 353
195 —— 355
196 —— 357
197 —— 359
198 —— 364

Plate 199 to face page 369
200 —— 375
201 —— 379
202 —— 383
203 —— 388
204 —— 389
205 —— 393
206 —— 394
207 —— 395
208 —— 397
209 —— 399
210 —— 400
211 —— 401
212 —— 407
213 —— 411
214 —— 419
215 —— 422
216 —— 429
217 —— 438
218 —— 440
219 —— 442
220 —— 449
221 —— 459
222 —— 462
223 —— 464
224 —— 467
225 —— 473
226 —— 478
227 —— 490
228 —— 497
229 —— 504
230 —— 505
231 —— 506
232 —— 513



ARABIAN

CAMEL.

QUADRUPEDS.

ORDER

PECORA.

CAMELUS. CAMEL.

Generic Character.

Cornua nulla.	*Horns* none.
Dentes Primores inferiores sex, spathiformes.	*Front-teeth* in the lower jaw six, somewhat thin and broad.
Laniarii distantes; superiores tres, inferiores duo.	*Canine-teeth* distant; in the upper jaw three, in the lower two,
Labium superius fissum.	*Upper Lip* divided.

ARABIAN CAMEL.

Camelus Dromedarius. *C. Topho dorsi unico. Lin. Syst. Nat. p.* 90.
Camel with a single dorsal bunch.
Camelus. *Gesn. Quadr.* 172. *Jonst. Quadr.* 95. *t.* 41, 42, 43. *Aldr. bisulc. p.* 908.
Le Dromadaire. *Buff.* 11. *p.* 211. *pl.* 9.
Arabian Camel. *Pennant Quadr.* 1. *p.* 129.

THE Camel, which, from the earliest ages of the world, has constituted the riches of Arabia, is found in the warmer parts of Asia and in the

upper regions of Africa. In Asia it is said not to be found farther north than Persia, and in Africa not farther south than Ethiopia. It is common in most parts of India.

The general height of the Arabian Camel, measured from the top of the dorsal bunch to the ground, is about six feet and a half, but from the top of the head when the animal elevates it, not much less than nine feet: the head, however, is generally so carried as to be nearly on a level with the bunch, or rather below it, the animal bending the neck extremely in its general posture: the head is small; the neck very long, the body of a long and meagre shape, the legs rather slender, and the tail, which is slightly tufted at the end, reaches to the joints of the hind legs: the feet are very large, and are hoofed in a peculiar style, being divided above into two lobes not reaching through the whole length of the foot, and the extremity of each lobe is guarded by a small hoof: the under part of the foot is covered with an extremely strong, tough, and pliable skin, which, by yielding in all directions, enables the animal to travel with peculiar ease and security over dry, stony, and sandy regions. On each leg are six callosities, viz. one on each knee, one on the inside of each fore-leg on the upper joint, and one on the inside of each hind-leg at the bottom of the thigh. On the lower part of the breast is also a large callus or tough tubercle, which is gradually increased by the constant habit which the animal has of resting upon it in lying down.

Though the Camel has even an elegant and picturesque appearance, in some particular attitudes, yet its general aspect, at first sight, is apt to impress on the mind the idea of deformity; and the dorsal bunch in particular has the appearance of some accidental monstrosity, rather than a truly natural conformation. This idea seems to have operated so powerfully on the mind of Buffon, that he has not scrupled to advance an opinion, that this part, as well as the pectoral bunch, was originally produced by ill usage, in constantly loading the animal with heavy burthens; and that, having once arisen, it has been transmitted by descent, and continues to form a permanent character. In confirmation of this theory he observes, that from the attestations of those who have dissected the Camel, it appears that these parts are often filled with a quantity of pus; the effect of previous inflammation. Upon the same principle he also conceives that the remarkable structure of the stomach, which is furnished with a peculiar apparatus of cells or receptacles for containing a great quantity of water, has originated from a similar source; "the animal, after suffering thirst for a long time, by taking as much, or perhaps more, water than the stomach could easily contain, the membrane would be gradually extended and dilated, in the same manner as we have seen the stomach of a sheep extend in proportion to the quantity of its aliment." The Count de Buffon, however, allows that these conjectures would be either fully confirmed, or destroyed, if we

had wild Camels to examine and compare with the domestic; but these animals can hardly be said to exist any where in a truly natural state, or if they do, no one has accurately observed and described them *.

The march of the Camel through the burning deserts of Arabia, and its signal services to the Arab, &c. &c. have been described with peculiar animation and elegance by this agreeable author, whose wayward and mistaken theories and numerous errors should not be allowed to prejudice us against the real merit of his writings.

"Figure to yourself a country without verdure and without water, a burning sun, an air always parched, sandy plains, mountains still more adust, which the eye runs over without perceiving a single animated being; a dead earth, perpetually tossed with the winds, and presenting nothing but bones, scattered flints, rocks perpendicular or overturned; a desert totally void, where the traveller never breathes under a shade, where nothing accompanies him, nothing recals the idea of animated nature; absolute solitude, more dreadful than that of the deepest forests; for to man, trees are, at least, visible objects; more solitary and naked, more lost in an unlimited void, he every where beholds space surrounding him as a tomb: the light of the day, more dismal than

* The Bactrian, or two-bunched Camel, is, however, said to be found wild in the desert parts of Asia, between India and China, and to be larger than the domesticated animal.

the darkness of night, serves only to give him a clearer idea of his own wretchedness and impotence, and to conceal from his view the barriers of the void, by extending around him that immense abyss which separates him from the habitable parts of the earth; an abyss which in vain he would attempt to traverse; for hunger, thirst, and scorching heat haunt every moment that remains to him between despair and death.

"The Arab, however, by the assistance of his Camel, has learned to surmount, and even to appropriate these frightful intervals of Nature. They serve him for an asylum, they secure his repose, and maintain his independence. But man never uses any thing without abuse. This same free, independent, tranquil, and even rich Arab, instead of regarding his deserts as the ramparts of his liberty, pollutes them with his crimes. He traverses them to carry off gold and slaves from the adjacent nations. He employs them for perpetrating his robberies, which unluckily he enjoys more than his liberty; for his enterprises are almost always successful. Notwithstanding the vigilance of his neighbours, and the superiority of their strength, he carries off with impunity, all that he ravages from them. An Arab, who gives himself up to this kind of terrestrial piracy, is early accustomed to the fatigues of travelling, to want of sleep, and to endure hunger, thirst, and heat. With the same view he instructs, rears, and exercises his Camels. A few days after their birth, he folds their limbs under their belly, forces them

to remain on the ground, and in this situation loads them with a pretty heavy weight, which is never removed but for the purpose of replacing a greater. Instead of allowing them to feed at pleasure, and to drink when they are dry, he begins with regulating their meals, and makes them gradually travel long journies, diminishing, at the same time, the quantity of their aliment. When they acquire some strength, they are trained to the course. He excites their emulation by the example of horses, and in time renders them equally swift and more robust. In fine, after he is certain of the strength, fleetness, and sobriety of his Camels, he loads them both with his own and their food, sets off with them, arrives unperceived at the confines of the desert, robs the first passenger he meets, pillages the solitary houses, loads his Camels with the booty, and if pursued, he is obliged to accelerate his retreat. It is on these occasions that he unfolds his own talents and those of the Camels; he mounts one of the fleetest, and conducts the troop, and makes them travel night and day, without almost either stopping, eating, or drinking; and in this manner he easily performs a journey of three hundred leagues in eight days. During this period of motion and fatigue, his Camels are perpetually loaded, and he allows them, each day, only one hour of repose, and a ball of paste. They often run in this manner nine or ten days, without finding water; and when, by chance, there is a pool at some distance, they scent the water half a league off. Thirst makes

them double their pace, and they drink as much at once as serves them for the time that is past, and as much to come; for their journey often lasts several weeks, and their abstinence continues an equal time.

"In Turkey, Persia, Arabia, Egypt, Barbary, &c. all the articles of merchandize are carried by Camels. Of all carriages it is the cheapest and most expeditious. The merchants and other passengers unite in a caravan, to prevent the insults and robberies of the Arabs. These caravans are often very numerous, and are always composed of more Camels than men. Each Camel is loaded in proportion to his strength; and when overloaded, he refuses to march, and continues lying till his burthen is lightened. The large Camels generally carry a thousand, or even twelve hundred pounds weight, and the smallest from six to seven hundred. In these commercial travels their march is not hastened: as the route is often seven or eight hundred leagues, their motions and journies are regulated. They walk only, and perform about from ten to twelve leagues each day. Every night they are unloaded, and allowed to pasture at freedom. When in a rich country or fertile meadow, they eat, in less than an hour, as much as serves them to ruminate the whole night, and to nourish them during twenty-four hours. But they seldom meet with such pastures; neither is this delicate food necessary for them. They even seem to prefer wormwood, thistles, nettles, broom, cassia, and other prickly

vegetables, to the softest herbage. As long as they find plants to brouse, they easily dispense from drink.

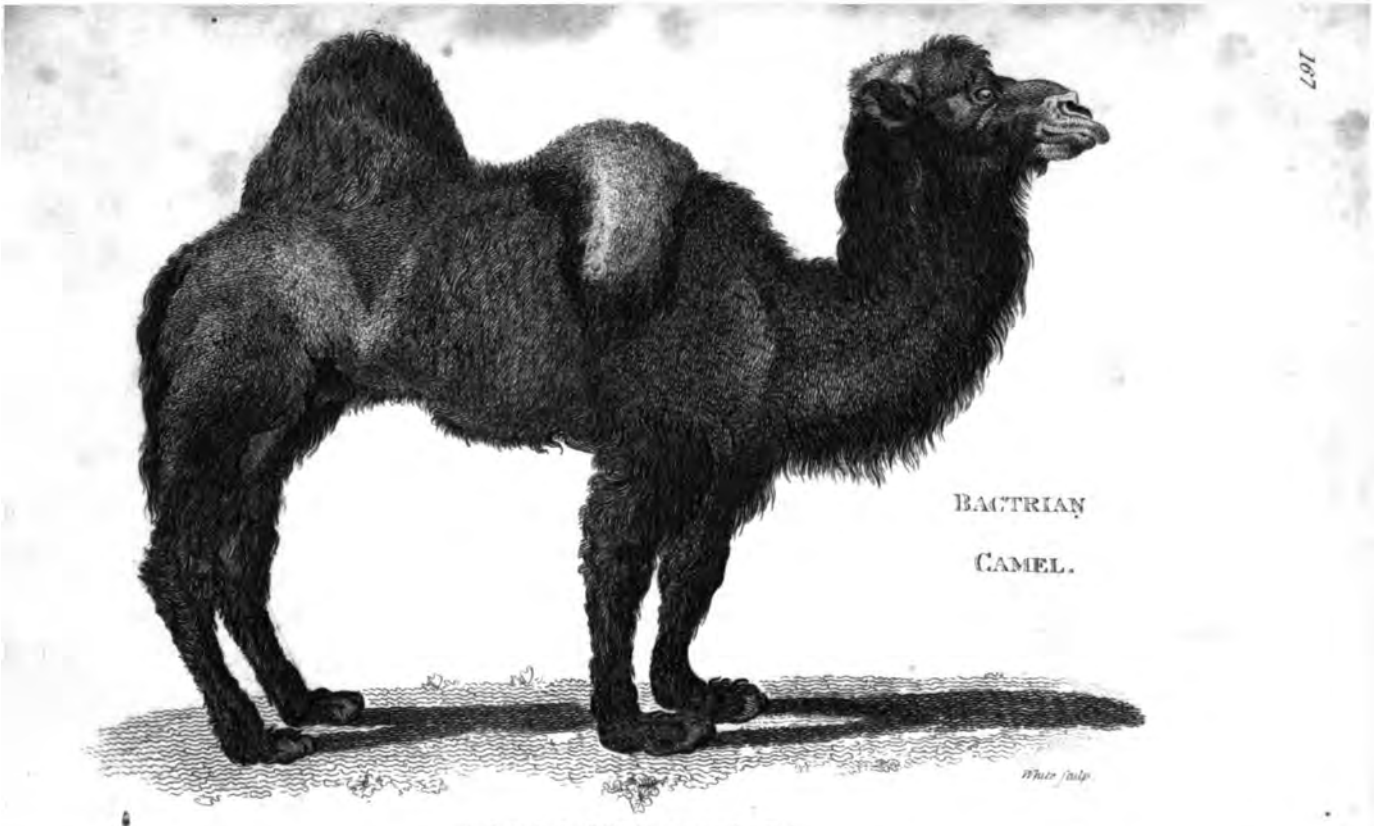
"Besides, this facility of abstaining long from drink, proceeds not from habit alone, but is rather an effect of their structure. Independent of the four stomachs, which are common to ruminating animals, the Camels have a fifth bag, which serves them as a reservoir for water. This fifth stomach is peculiar to the Camel. It is so large as to contain a vast quantity of water, where it remains without corrupting or mixing with the other aliments*. When the animal is pressed with thirst, and has occasion for water to macerate his dry food in ruminating, he makes part of this water mount into his stomach, or even as high as the throat, by the mere contraction of certain muscles. It is by this singular construction that the Camel is enabled to pass several days without drinking, and to take at a time a prodigious quantity of water, which remains in the reservoir pure and limpid, because neither the liquors of the body nor the juices of digestion can mix with it.

"If we reflect on the dissimilarity in this animal from other quadrupeds, we cannot doubt that his nature has been considerably changed by constraint, slavery, and perpetual labour. Of all

* This particularity is well known to Oriental travellers, who have sometimes found it necessary to kill a Camel in order to obtain a supply of water thus preserved in its receptacle. In Mr. Bruce's travels may be found instances of this.

animals the Camel is the most antient, the completest, and the most laborious slave. He is the most antient slave, because he inhabits those climates where men were first polished. He is the most complete slave, because in the other species of domestic animals, as the horse, the dog, the ox, the sheep, the hog, &c. we still find individuals in a state of nature, and which have not submitted to man. But the whole species of the Camel is enslaved; for none of them exist in their primitive state of liberty and independence. Lastly, he is the most laborious slave; because he has never been nourished for pomp, like most horses, nor for amusement, like most dogs, nor for the use of the table, like the ox, the hog, and the sheep; because he has always been made a beast of burthen, whom men have never taken the trouble of yoking in machines, but have regarded the body of the animal as a living carriage, which they may load, or overload, even during sleep; for when pressed, the load is sometimes not taken off, but the animal lies down under it with his legs folded, and his body resting on his stomach. Hence they perpetually bear the marks of servitude and pain. Upon the under part of the breast is a large callosity, as hard as horn, and similar ones on the joints of the limbs. Though these callosities are found on all Camels, they exhibit a proof that they are not natural, but produced by excessive constraint, and painful labour; for they are often filled with pus. The

breast and legs are, therefore, deformed by callosities; the back is still more disfigured by one or two bunches. The callosities, as well as the bunches, are perpetuated by generation. As it is obvious that the first deformity proceeds from the constant practice of forcing these animals, from their earliest age, to lie on their stomach, with their limbs folded under the body; and in this situation to bear both the weight of their own bodies, and that of the load laid on their backs, we ought to presume that the bunch or bunches have also originated from the unequal pressure of heavy burthens, which would naturally make the flesh, fat, and skin swell; for these bunches are not osseous, but composed of a fleshy substance resembling a cow's udder. Hence the callosities and bunches should be regarded equally as deformities produced by continual labour and bodily constraint; and though at first accidental and individual, they are now become permament, and common to the whole species. We may likewise presume that the bag which contains the water, and is only an appendix to the stomach, has been produced by an unnatural extension of that viscus. The animal, after suffering thirst for a long time, by taking in at once as much, and perhaps more, water than the stomach could easily contain, this membrane would be gradually extended and dilated, as we have seen the stomach of a sheep dilated in proportion to the quantity of its aliment. In sheep fed with grain the stomach is


BACTRIAN
CAMEL.
White sculp.
Jan.y 1. London Publish'd by G. Kearsley Flott Street

very small; but becomes very large in those fed with herbage alone.

"These conjectures would be either confirmed or destroyed, if we had wild Camels to compare with the domestic; but these animals no where exist in a natural state, or if they do, no one has described or observed them. We ought, therefore, to suppose that every thing good and beautiful belongs to Nature, and that whatever is defective and deformed in these animals proceeds from the labour and slavery imposed on them by the empire of man."

The general colour of the Camel is an uniform dusky brown, more or less tinged with ferruginous. Its hair is fine and soft, and serves for the basis of several kinds of stuffs.

There are several varieties of this animal, differing in size, strength, &c. analogous to the different breeds of horses

BACTRIAN CAMEL.

Camelus Bactrianus. *C. tophis dorsi duobus. Lin. Syst. Nat: p.* 90.
Camel with two dorsal bunches.
Camelus. *Gesn. Quadr.* 163. *Aldr. bisulc.* 907.
Dromedarius. *Jonst. Quadr. p.* 42. 43, 44. *f.* 1.
Le Chameau. *Buff.* 11. *p.* 211, 246. *pl.* 22.
Bactrian Camel. *Pennant Quadr.* 1. *p.* 132.

In its general appearance the Bactrian Camel so much resembles the Arabian, that it might ra-

ther seem a permanent variety of that animal, than a distinct species; differing only in being somewhat larger and in having two bunches on the back instead of one. It is said to be found wild in the northern parts of India, and in the deserts bordering on China, and is more esteemed for swiftness than the Arabian Camel.

In Arabia it is kept chiefly for the use of the great, being not a native of that country, but imported from India, &c. Of this animal, as well as of the Arabian Camel, there are several races or varieties, differing, like those of horses, in strength, size, swiftness, and elegance of form. A breed of peculiar swiftness is said to be reared in China, and to be distinguished by the expressive title of *Fong Kyo Fo*, or Camels with feet of wind. A white variety occurs in some parts of Siberia, and lastly, a hybrid or mixed breed is said to be occasionally obtained between the Bactrian and the Arabian Camel.

VICUNA.

GLAMA.

1801 Jan.y 1. London. Published by G. Kearsley, Fleet Street.

GLAMA.

Camelus Glama. C. *dorso lævi, topho pectorali. Lin. Syst. Nat. p.* 91.
Pale ferruginous Camel, whitish beneath, with smooth back, and pectoral bunch.
Camelus Peruvianus Glama dictus. *Raj. Quadr.* 145.
Ovis Peruana. *Charlet. exer. p.* 9. *Jonst. Quadr. t.* 46.
Le Lama. *Buff.* 13. *p.* 16. *and Suppl.* 6. *p.* 204. *pl.* 27.
Llama. *Pennant Quadr.* 1. *p.* 133.

THIS animal, described by some of the old naturalists, under the name of *Ovis Peruviana**, or Peruvian Sheep, is a native of South America, and is particularly plentiful in Peru, where it inhabits, in a wild state, the highest and coldest parts of mountains, feeding in numerous herds, and flying with great rapidity on the sight of mankind. It was, however, completely subdued and domesticated by the antient Peruvians, being the only beast of burthen known to that people, to whom it answered the same purposes as the Camel and Dromedary in the eastern regions of the old continent. The general size of the Glama is nearly that of a stag; measuring about four feet and a half in height to the top of the shoulders, and about six feet in length from nose to tail. The neck is of a great length; the head small; the back slightly elevated, and the whole animal bears some resemblance to a Camel on a smaller scale. Its

* This name has also been applied by some authors to the Paco, &c.

general colour is a light ferruginous brown, paler or whitish on the under parts; and sometimes it is said to be varied or patched with darker and lighter shades on different parts, and to have a black stripe running down the back to the beginning of the tail.

The hair, in the wild animal, is long and shaggy: in the domesticated smoother and closer. On the breast is a protuberance, from which is observed to exude a kind of oily secretion. The voice of the Glama resembles the shrill neighing of a horse. When angry or attacked, it strikes with its feet, endeavours to bite, and at the same time ejaculates from its mouth a quantity of saliva, which is said to be of a caustic or acrimonious nature, and to excite a slight inflammation on the skin. The Glama is said to be able to carry a burthen of about a hundred and fifty pounds weight, and to travel at the rate of three German miles a day for three or four days together. When resting, it leans on its breast in the manner of the Camel, which it also resembles in the faculty of abstaining long from drink; sometimes four or five days; and, like that animal, may be supported by very coarse and trifling food. Its flesh is said to resemble mutton in flavour.

The individual described in the 6th supplemental volume of Buffon, was remarkable for the mildness of its manners and the docility of its disposition.

VICUNA.

Camelus Vicugna. *C. corpore lanato lævi, rostro simo obtuso, cauda erecta. Lin. Syst. Nat. Gmel. p* 171.
Purplish-brown Camel, whitish beneath, with smooth woolly body, obtuse snout, and upright tail.
Camelus laniger. *Klein. Quadr.* 42.
Vicognes ou Vicunas. *Frez. voy.* 1. *p.* 266.
La Vigogne. *Buff. Suppl.* 6. *p.* 208. *pl.* 38.
Vicunna. *Pennant Quadr.* 1 *p.* 136.

THE Vicuna, as may be perceived by consulting the annexed representation, bears an extreme general resemblance to the Glama; but is of a lighter and more delicate aspect, and of smaller size: the head is smaller and shorter in proportion: the eyes remarkably large and full: the ears somewhat sharper, and the limbs more slender: the tail has a somewhat erect appearance, contrary to the character given in the Gmelinian edition of the Systema Naturæ; but perhaps too great a dependence is not to be placed on a character like this, which may vary somewhat in different individuals, and which ought never to be assumed as a discriminating character, except where the appearance is peculiarly marked and striking. The prevailing colour of the Vicuna on the upper parts is a reddish brown, or approaching to wine-colour, and the remainder of an Isabella colour; the breast, belly, insides of the thighs, and under part of the tail, are white. The hair of this animal is of a very soft, wavy, and woolly nature; that on the breast is nearly three inches long; on the other parts not more than one inch: the

end of the tail is furnished, like the breast, with long woolly hair. The individual described in the sixth supplemental volume of Buffon was of a somewhat fierce disposition, and often attempted to bite those who examined it. It was never observed to drink, and seemed to have the same general habits and manners as the Glama.

The Glama, the Paco, and the Vicuna, have sometimes been considered as the same species, and what seems to have been a principal cause of confusion among naturalists with respect to these Peruvian animals is, that the word *Lama* or *Glama* is used among the Peruvians as a general name rather than a particular one. In the provinces of Cusco, Potosi, and Tucuman, we are assured that three species of Lamas are distinguished by appropriate titles.

The Vicuna seems to afford the finest wool of any, and it is wrought into cloths of most exquisite silky softness and beauty, which are said to be too warm for common wear, unless made peculiarly thin.

The Vicuna, as well as the Paco or next species, is sometimes taken by the Peruvians by the simple artifice of tying cords, with bits of wool or cloth fixed to them at certain distances, at three or four feet from the ground, across the narrow passes of the mountains; and when the animals have been hunted or driven that way, they are so terrified by the fluttering of the rags, that, instead of attempting to pass, they huddle together in heaps, and thus afford their pursuers an opportu-

nity of killing with their slings as many as they please.

This circumstance of being terrified, and as it were fascinated, by a cord drawn across any particular space, is, however, by no means peculiar to this animal, but takes place, as is well known, in several of the Deer tribe, and particularly in the common Fallow Deer, which may be easily confined in a similar manner.

PACO.

Camelus Paco. *C. tophis nullis, corpore lanato, rostro oblongo. Lin. Syst. Nat. Gmel. p.* 171.
Purplish-brown woolly Camel, white beneath, with oblong snout.
Paco. *Laet. amer. p.* 405.
Paco. Alpaco. *Molin. Chil.* 296. *Buff.* 13. *pl.* 16.
Pacos. *Pennant Quadr.* 1. *p.* 137.

This species is said to be entirely confined to Peru, where the natives keep vast flocks of them for the sake of the wool, of which they prepare cloth of silky lustre and softness. Like the Vicuna, it is found in mountainous districts in large herds, but is never observed to associate with those animals. It is of a more robust make * than the Vicuna, and is covered with very long wool, which is, in the wild animal, of a dull purple co-

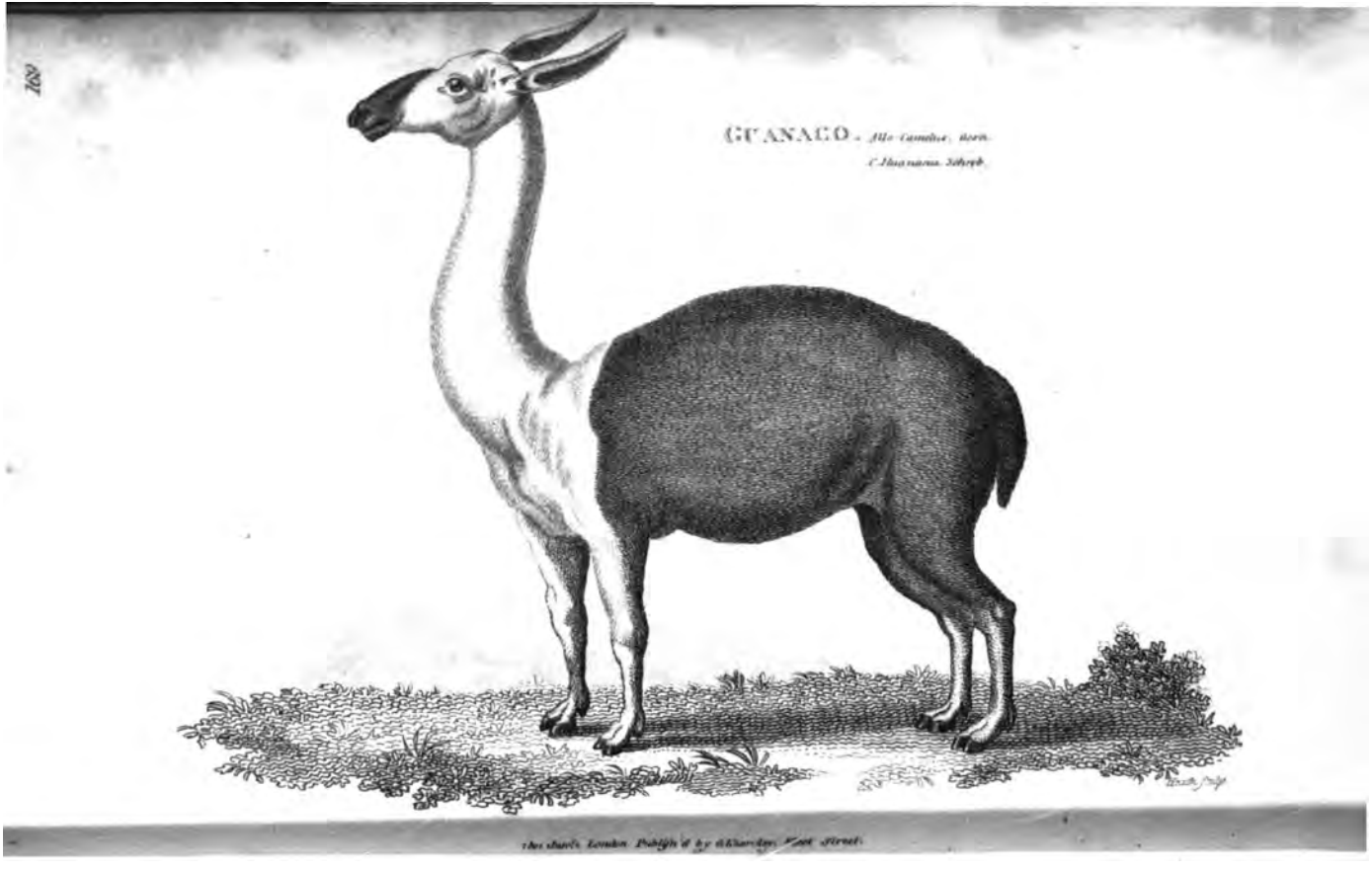
* Gmelin, in his edition of the Systema Naturæ, says it is smaller; but I am not without my suspicions that the *Vicugna* of Gmelin is the *Pacos* of Pennant, and *vice versâ*.

lour, resembling that of dried rose leaves, but in the domesticated kind is often varied with black, white and rufous: the belly is white. Like the two preceding species, it has sometimes been named the Peruvian Sheep. Those concretions, known by the name of Bezoars, are often found in the stomach of this as well as of other species.

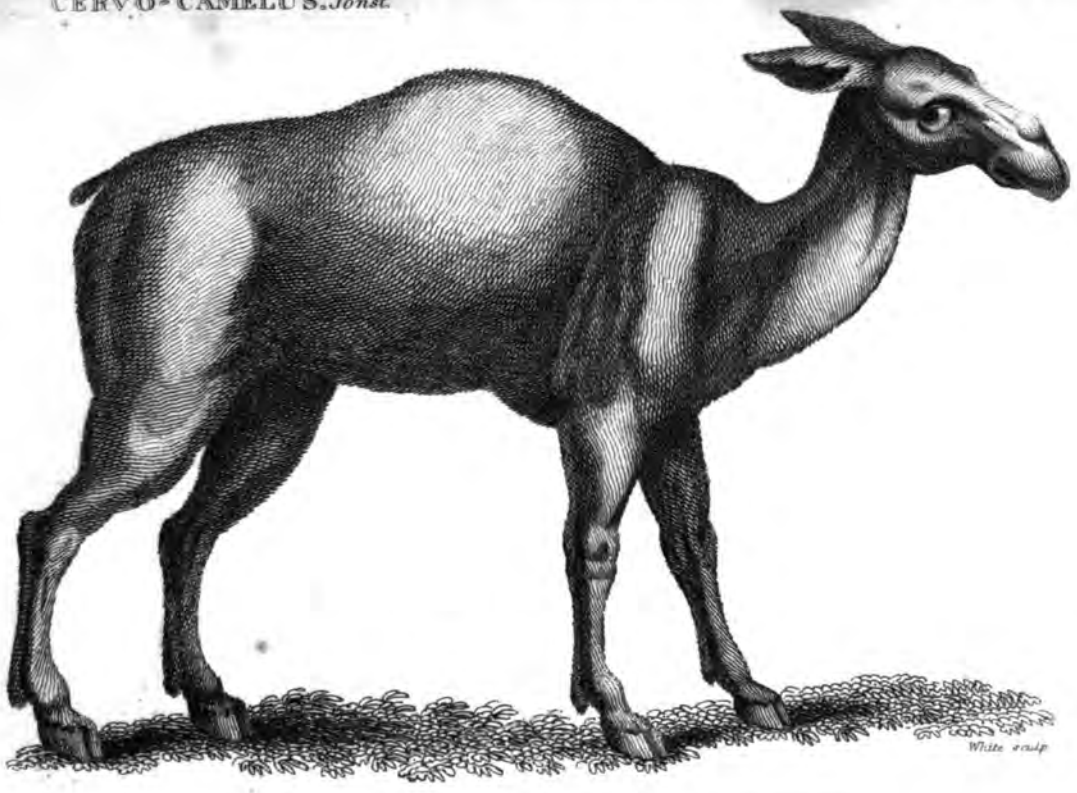
GUANACO.

Camelus Huanacus. *C. corpore piloso, dorso gibbo, cauda erecta. Lin. Syst. Nat. Gmel. p.* 170. *Molin. Chil. p.* 281.
Tawny Camel, white beneath, with gibbose back, and upright tail.
Guanaco, sive Huanacu. *Laet. amer. p.* 406. *Ulloa voy.* 1. *p.* 366. *t.* 24. *f. f.*
Cervo-Camelus. *Jonst. Quadr. t.* 29.?
Camelus Huanacus. *Schreber saeugth. t.* 306.?
Guanaco. *Pennant Quadr.* 1. *p.* 138.
Allo-Camelus. *Gesn. ic. Quadr. p.* 43.

The Guanaco is a native of Peru, and is found in similar situations with the Glama and the Paco. It is the largest of all the Peruvian animals of this kind, and is said sometimes to grow to the size of a horse. Its back is pretty much arched, and it is covered, not with wool like the other smaller species, but with long, smooth hair: the head is round; the nose somewhat pointed; the ears strait, like those of a horse; and the tail short, and turning upwards. It appears to be more nearly allied to the Glama than to any other species, but is said never to associate with that ani-


GUANACO. Alle Camelus, Gorn.
C. Huanacus. Schreb.
Thos. Jewitt, London. Publish'd by G. Kearsley, Fleet Street.

CERVO-CAMELUS. *Jonst.*



1801 Jan 1st London Published by G. Pearsley Fleet Street

mal. Its general colour is tawny above and white below. In summer it inhabits the tops of the mountains, but in winter descends into the vallies. It runs with extreme swiftness, and from the length of its hind legs, prefers descending the hills, which it does by leaps and bounds, in the manner of a buck. When young it is said to be hunted with dogs, and when old to be chased on swift horses, and caught with nooses dextrously thrown. The flesh of the young animals is said to be excellent; and that of the old is preserved with salt.

I must here observe, that the figure published by Mr. Schreber, under the title of Camelus Huanacus, contradicts the specific character given by Molina and others, having a pendent tail instead of an elevated one. The figure is evidently copied from Gesner, who calls the animal by the name of Allo-Camelus, and mentions it as having been sent from South America into Europe, in the year 1558, and called an Indian Sheep. It was six feet high, and five in length: the neck was as white as that of a swan; the rest of the body reddish, or purplish; and the feet shaped like those of a Camel. This figure is introduced into the present publication, together with a plate of the Cervo-Camelus, of Johnston (which is generally quoted by authors for the Glama), and to which the first mentioned figure is evidently much allied.

Upon the whole, I cannot avoid expressing my suspicion, that no great dependence is to be placed

on the specific characters hitherto given of some of these animals, and that if the subject were accurately investigated, it might perhaps be discovered that they are rather varieties than species truly distinct.

CHILIHUQUE.

Camelus Arcucanus. *C. corpore lanato lævi, rostro superne curvo, cauda pendula. Lin. Syst. Nat. Gmel. p.* 170. *Molin. Chil. p.* 279.

Camel with smooth woolly body, curved snout, and pendulous ears and tail.

Aries moromorus. *Nieremb. Hist. Nat. p.* 182.

Moutons de Perou. *Frez. voy.* 1. *p.* 264. *t.* 22. A.

Chilihucque. *Pennant Quadr.* 1. *p.* 138.

This species, which inhabits Peru and Chili, is described as measuring about six feet in length, and about four in height. It is covered with woolly hair, and in its general appearance is not unlike a ram. The ears are flaccid or pendulous, the neck and legs long, the tail like that of a sheep, but shorter in proportion: the wool is very soft, and the colour of the animal is said to vary in different individuals, being either brown, black, ash-coloured, or white. This animal was employed by the ancient inhabitants of Chili as a beast of burthen, as well as in ploughing: its wool was also used in the manufacture of a fine silky cloth or stuff; but this is now said to have given place to the introduction of European wool, as being stronger and more serviceable.

TIBETIAN MUSK.

Jan.y 1. London Publish'd by G. Kearsley, Fleet Street.

MOSCHUS. MUSK.

Generic Character.

Cornua nulla.	*Horns* none.
Dentes Primores inferiores octo.	*Front-teeth* in the lower jaw eight.
Laniarii superiores solitarii exserti.	*Tusks* solitary, in the upper jaw, exserted.

TIBETIAN MUSK.

Moschus Moschiferus. *M. folliculo umbilicali. Lin. Syst. Nat. p.* 91.
Grey-brown Musk with umbilical follicle.
Moschus. *Schroech. hist. mosch. t.* 44.
Animal moschiferum. *Nicremb. hist. nat. p.* 184. *J. G. Gmelin nov. comm. Petrop.* 4. *p.* 393. *Raj. Quadr. t.* 127.
Capra moschi. *Aldr. bisulc. p.* 743. *Gesn. Quadr. p.* 786.
Le Musc. *Buff.* 12. *p.* 361. *and Suppl.* 6. *p.* 221. *pl.* 29.

THE Musk is one of those quadrupeds whose true form and natural history appear to have continued in great obscurity long after the introduction and general use of the celebrated perfume which it produces. To the ancients it was un-

known, and was first mentioned by the Arabians*, whose physicians used the drug in their practice. The animal was by some considered as a kind of Goat, by others as a species of Deer, or Antelope, and was, of course, supposed to be a horned animal; nor was it till about the decline of the seventeenth century that a tolerably accurate description or figure was to be found.

The size and general appearance of this animal not ill resemble those of a small Roebuck. It measures about three feet three inches in length; about two feet three inches in height from the top of the shoulders to the bottom of the fore-feet, and two feet nine inches from the top of the haunches to the bottom of the hind-feet. The upper jaw is considerably longer than the lower, and is furnished on each side with a curved tusk about two inches long, and consequently exposed to view when the mouth is closed. These tusks are of a different form from those of any other quadruped; being sharp-edged on their inner or lower side, so as to resemble, in some degree, a pair of small crooked knives: their substance is a kind of ivory, as in the tusks of the Babyrussa and some other animals. The ears are long and narrow, of a pale yellow on the inside, and deep brown on the outside: the chin of a yellowish cast; the general colour of the whole body a kind of deep iron-grey; the tips of the hairs being of a ferruginous cast, the remainder blackish, growing much paler

* In the eighth century it was described by Serapion.

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or whitish towards the roots: each hair is somewhat waved or undulated throughout its whole length; and is of a strong and elastic nature, growing somewhat upright on the animal, and very thick. In some specimens the cheeks are whitish, and the sides of the neck marked by a longitudinal whitish band or stripe, descending to the breast; while the flanks and sides are obscurely striped by a few waved whitish streaks: in others the colour is uniform, or as at first described: the hoofs are long and black: the tail extremely short, and so concealed by the fur as to be scarce, if at all, visible on a general view.

The female is smaller than the male, and wants the tusks: it has also two small teats.

These animals are principally found in the kingdom of *Tibet;* the province of *Mohang Meng*, in *China; Tonquin*, and *Boutan*. They are also found about the lake *Baikal*, and near the rivers *Jenesea* and *Arguń*. Their favourite haunts are the tops of mountains covered with pines, where they delight to wander in places of the most difficult access, resembling, in their manners, the Chamois and other mountain quadrupeds, springing with great celerity, and, when pursued, taking refuge among the highest and most inaccessible summits.

They are hunted for the sake of their well-known perfume; which is contained in an oval receptacle about the size of a small egg, hanging from the middle of the abdomen, and peculiar to the male animal. This receptacle is found constantly filled with a soft, unctuous, brownish sub-

stance, of the most powerful and penetrating smell; and which is no other than the perfume in its natural state. As soon as the animal is killed, the hunters cut off the receptacle or musk-bag, and tie it up ready for sale. The animals must of necessity be extremely numerous in some parts, since we are assured by Tavernier, the celebrated merchant and traveller, that he purchased, in one of his eastern journeys, no less than seven thousand six hundred and seventy-three musk-bags.

This receptacle or follicle containing the musk is covered externally with short brown hair, and is more or less full according to the age, health, &c. of the animal: the contained substance or musk is, when dry, of a dark reddish brown or rusty black colour, somewhat unctuous, and of a more or less granulated appearance: it has a bitterish subacrid taste; and a fragrant smell, agreeable at a distance, but so strong as to be highly unpleasant when smelt near to. So violent indeed is the smell of musk, when fresh taken from the animal, or from quantities put up by the merchants for sale, that it has been known to force the blood from the nose, eyes, and ears of those who have imprudently inhaled its vapours; and we are assured by Chardin, that whenever he was engaged in making purchases of musk, he always found it necessary to cover his face with several folds of a handkerchief, in order to be sufficiently secure against the sudden effects of the smell.

As musk is an expensive drug it is frequently adulterated by various substances, and we are

assured that pieces of lead have been found in some of the receptacles, inserted in order to increase the weight. The smell of musk is so remarkably diffusive, that every thing in its neighbourhood becomes strongly infected with it; and what has once received it, is apt to retain the scent for a great length of time: even a silver cup that has had musk in it does not easily part with the scent, though other odors are in general very readily discharged from metallic substances.

As a medicine it is held in high estimation in the eastern countries, and has now been introduced into pretty general use among ourselves, especially in those disorders which are commonly termed nervous; and in convulsive and other cases, it is often exhibited in pretty large doses with great success.

INDIAN MUSK.

Moschus Indicus. *M. supra rufus, subtus albidus unicolor, unguis succenturiatis, cauda unicolore. Lin. Syst. Nat. Gmel. p. 173.*

Rufous Musk, whitish beneath, with spurious hoofs, and somewhat lengthened tail.

Tragulus Indicus. *Briss. regn. anim. p. 95. n. 1.*

This species is said by Mons. Brisson, who seems its first describer, to be rather larger than the common or Tibetian Musk, of the colour mentioned in the specific character, with the head

shaped like that of a horse, upright oblong ears, and slender legs. It is a native of India.

PYGMY MUSK.

Moschus Pygmæus. *M. supra fusco-rufus, subtus albus, unguis succenturiatis nullis. Lin. Syst. Nat. Gmel. p.* 173. *Erxl. mamm. p.* 322. *n.* 3.

Reddish-brown Musk, white beneath, without false hoofs.

Moschus Pygmæus. *M. pedibus digito humano angustioribus. Lin. Syst. Nat.* 12. *ed. p.* 92.

Cerva parvula Africana, &c. *Seb. mus.* 1. *p.* 70. *t.* 43. *f.* 1, 2, 3.

Le Chevrotain. *Buff.* 12. *p.* 341. *pl.* 42, 43.

Guinea Musk. *Pennant Quadr.* 1. *p.* 127.

This most elegant little animal is considerably smaller than a domestic cat, measuring little more than nine inches from the nose to the tail. Its colour is bright bay, white beneath and on the insides of the thighs. Its shape is beautiful, and the legs are so slender as not to exceed the diameter of a swan quill: the head is rather large, the ears and eyes large, and the aspect mild: in the upper jaw are two tusks: the tail is about an inch in length, and the feet are remarkable for having no appendicular or false hoofs, by which mark this species may be distinguished from some others, not only of this genus, but of that of *Antelope*, to which it is nearly allied in size and general appearance. It is a native of many parts of the East Indies and the Indian islands, and is said to be most common in Java, where the natives

AMERICAN MUSK.

PYGMY MUSK.

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catch great numbers in snare, and carry them to the markets in cages for sale. According to Mr. Pennant they may be purchased at so low a rate as two pence halfpenny a-piece.

The Pygmy Musk has been very elegantly figured by Seba and others, but has often been confounded with some other species, as well as with the Royal Antelope, an animal equally beautiful and diminutive, and which will be described under its proper genus. It is necessary to observe, that our present animal is improperly supposed by M. Brisson and others to be a native of Guinea. I must also add, that the elegant specimen in the Leverian Museum, particularly referred to by Mr. Pennant, in his History of Quadrupeds, as well as described by myself in the *Naturalist's Miscellany*, is in reality a different species, viz. the *Moschus Javanicus*.

The legs of the Pygmy Musk have been frequently capped at the upper joint with gold or silver, and in that state used by way of tobacco-stoppers. Specimens thus prepared may be seen in most museums, and are also engraved in the works of Seba and Buffon. A leg of this animal is also described by Grew in his Museum of the Royal Society, under the highly improper title of a leg of a *Greenland Stag*.

MEMINNA.

Moschus Meminna. *M. supra cinereo-olivaceus, subtus albus, lateribus albo-maculatis, ungulis succenturiatis nullis. Lin. Syst. Nat. Gmel. p.* 174.

Olivaceo-cinereous Musk, white beneath, with the sides spotted with white, and no false hoofs.

Meminna. *Knox Ceyl. p.* 21.

Chevrotain à peau marqueteé de taches blanches. *Buff.* 12. *p.* 315.

Mémina ou Chevrotain de Ceylan. *Buff. Suppl.* 3. *p.* 102. *pl.* 15.

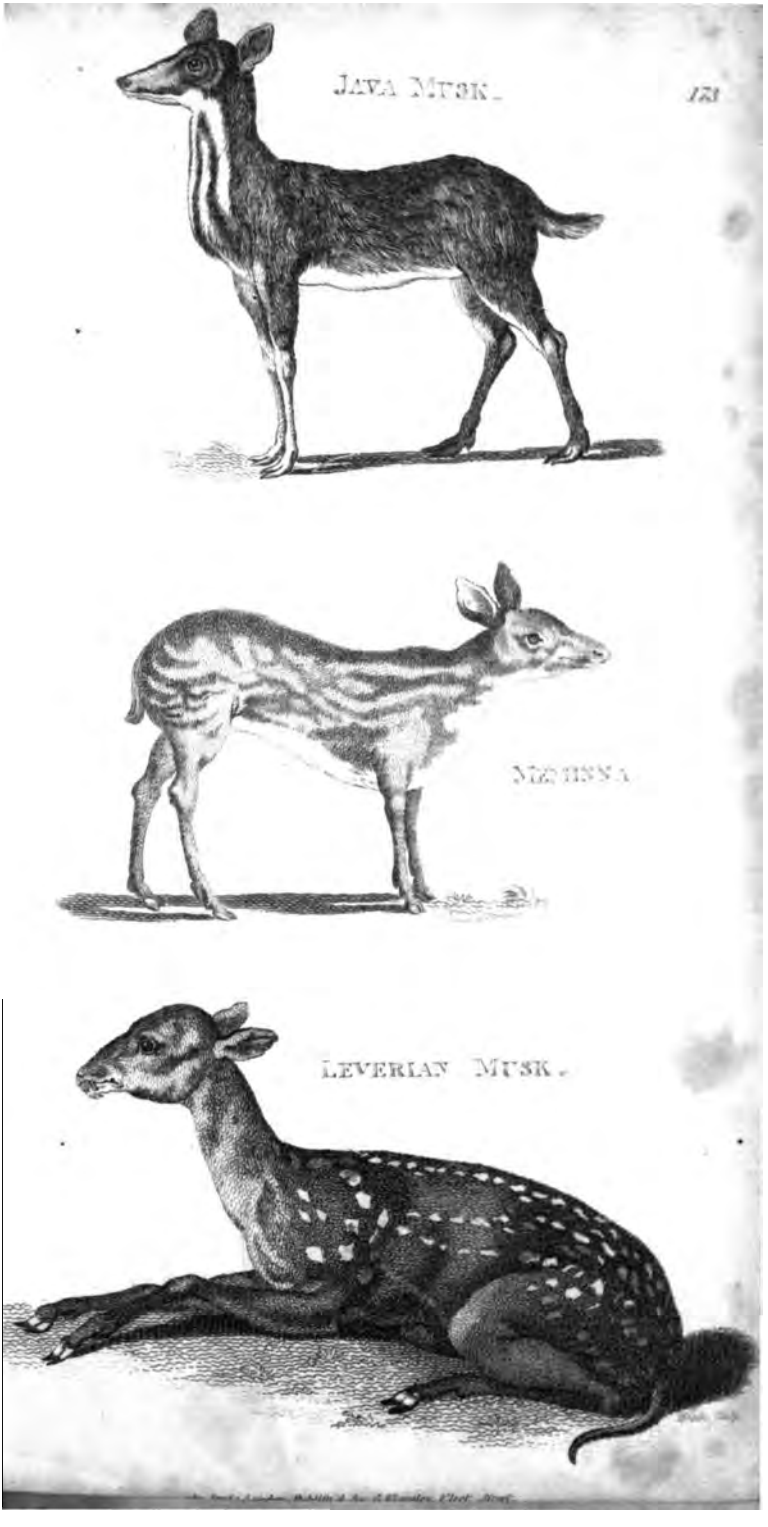
Indian Musk. *Pennant Quadr.* 1. *p.* 127.

The Meminna is a native of the Indian islands, and is chiefly found in Ceylon and Java.

It is readily distinguished, by its remarkable colour and spots, from the rest of it congeners. It seems to have been first acknowledged as a distinct species of this genus by Mr. Pennant, who described it from a drawing communicated by Governor Loten from Ceylon.

Its length is about seventeen inches; its colour a cinereous olive, with the throat, breast, and belly, white, and the sides and haunches spotted and barred transversely with white: the ears are large and open, and the tail very short. The weight of this species is about five pounds and a half.

The Count de Buffon, in his third supplementary volume, has figured this animal, but seems to consider it as a variety rather than a distinct species, and confounds it with the Moschus pygmæus.


JAVA MUSK.
LEVERIAN MUSK.

JAVA MUSK.

Moschus Javanicus. *M. supra ferrugineus, subtus longitudinaliter albus, cauda longiuscula villosa subtus et apice alba, ungulis succenturiatis exiguis. Lin. Syst. Nat. Gmel. p.* 174. *Pall. spic. Zool.* 12. *p.* 18. 13. *p.* 28.

Ferruginous Musk, longitudinally white beneath, with villose tail, white beneath and at the tip, and small appendicular hoofs.

Le Chevrotain de Java. *Buff. Suppl. 6. p.* 229. *pl.* 30.

THIS species, which, as its name imports, is a native of the island of Java, appears to have been first described by Dr. Pallas, in his work entitled *Spicilegia Zoologica.* Its size is that of a rabbet, and its general colour ferruginous brown, with blackish hairs intermixed, and whitish beneath, with a pair of longitudinal white stripes running down on each side the lower part of the neck; the tail is white beneath and at the tip: the feet, which nearly resemble those of the Pygmy Musk, are yet furnished with very small appendicular hoofs. This animal is introduced into the sixth supplementary volume of Buffon, and is figured under the name of *Chevrotain de Java.* It appears to be the animal of which Mr. Pennant quotes a specimen in the Leverian Museum, and which, through some oversight, has been described by him in his History of Quadrupeds, and by myself in the Naturalist's Miscellany, as the Moschus Pygmæus; the circumstance of the appendicular or false hoofs having been, through inadvertance, overlooked.

The Count de Buffon considers it as a variety only of the *Meminna* before described.

AMERICAN MUSK.

Moschus Americanus. *M. rufo-fuscus, ore nigro gula alba. Lin. Syst. Nat. Gmel. p.* 174. *Erxl. mamm. p.* 324. *n.* 4.
Rufous-brown Musk, with black muzzle and white throat.
Brasilian Musk. *Pennant Quadr.* 1. *p.* 126.

THE American Musk is confined to the Southern parts of that continent, and is principally found in Guiana and Brasil. Mr. Pennant describes it as of the size of a Roebuck, with ears four inches long; the veins very apparent: eyes large and black; nostrils wide; space about the mouth black: hind legs longer than the fore; tail six inches long; white beneath: hair on the whole body short and smooth: head and neck tawny, mixed with ash-colour: back, sides, chest, and thighs, of a bright rust-colour: lower part of the belly and insides of the thighs white. Marcgrave says the throat and under side of the neck are also white.

This animal, says Mr. Pennant, is excessively timid, and most remarkably active and swift, and can stand, like a goat, with all the four legs together on the point of a rock. They are said to be often seen swimming rivers, and are at that time easily taken. The Indians hunt them, and their flesh is esteemed very delicate. The French

of Guiana call them Biches or Does, because, notwithstanding their resemblance to Deer, both sexes are without horns. Both Mr. Pennant and Gmelin, in his edition of the Systema Naturæ, seem to consider a small spotted species figured by Seba as the same with this: but it appears, at least so far as size and colour can constitute a difference, to be very distinct.

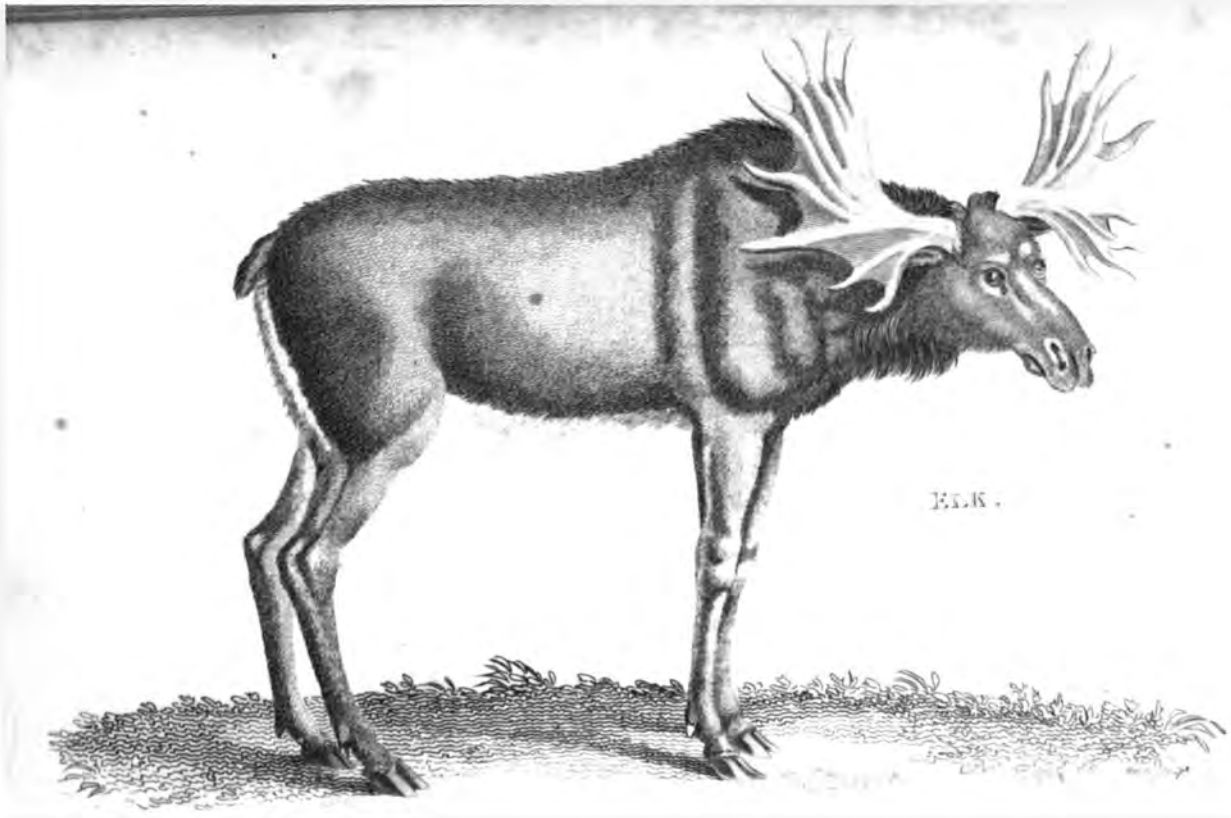
LEVERIAN MUSK.

Moschus Delicatulus. *M. fusco-ferrugineus, supra maculis albis notatus. Museum Leverianum, vol. 1. p. 149. t. 36.*
Ferruginous-brown Musk, spotted above with white.
Small spotted Musk. *Museum Leverianum 1. p. 151. pl. 36.*
Cervula Surinamensis subrubra albis maculis notata. *Seb. mus. 1. p. 71. t. 44. f. 2.*

This species, if such it really be, seems to have been first figured by Seba, who assures us that it is a native of Surinam, and describes it as of a ferruginous colour, thickly spotted with white, except on the head, breast, and belly. He is not very clear in his expressions relative to its size, but it seems to rank among the very small species, such as the Javanicus, Pygmæus, &c. The animal described and figured in the first volume of the Museum Leverianum under the title of *Moschus delicatulus* or *small spotted Musk*, appears so very nearly allied to that of Seba, that it is in all probability the same. It is, however, whitish beneath the neck and breast, and the tail is a

trifle longer and thinner than in Seba's figure, and not so well covered with hair. In size it scarcely exceeds that of the Pygmy Musk.

The figure given in the Museum Leverianum is introduced by Mr. Schreber into his work on Quadrupeds under the same title, viz. *Moschus delicatulus.* I must, however, confess myself to be not without some suspicion, from the fineness and closeness of the hair, in the above-mentioned specimen, that it is rather a very young animal than of its true size: it must consequently be considered as doubtful. In the form of its teeth it nearly resembles the M. Javanicus and some others, having the two middle cutting-teeth very broad. For the satisfaction of the reader, the figure is copied from the Museum Leverianum into the present work.



ELK.

CERVUS. DEER

Generic Character.

Cornua solida, tenera corio hirto tecta apiceque crescentia, denudata, annua, furcata.

Dentes Primores inferiores octo.

Laniarii nulli (interdum solitarii superius).

Horns solid, covered while young with a hairy skin, growing from the top, naked, annual, branched.

Front-teeth in the lower jaw eight.

Canine-teeth none (sometimes single in the upper jaw).

ELK.

Cervus Alces. *C. cornibus acaulibus palmatis, caruncula gutturali. Lin. Syst. Nat. p. 92.*

Deer with stemless palmated horns, and guttural caruncle.

Alce. *Gesn. Quadr. 1. p. 1. Aldr. bisulc. p. 866. Jonst. Quadr. t. 30, 31.*

L'Elan. *Buff. 12. p. 79. and Suppl. 7. p. 318. 320. pl. 80.*

Elk. *Pennant Quadr 1. p. 105.*

Moose Deer. *Dudley. Phil. Trans. No. 368. p. 165. Dale Phil. Trans. No. 444. p. 384. Josselyn Voy. New Engl. p. 88.*

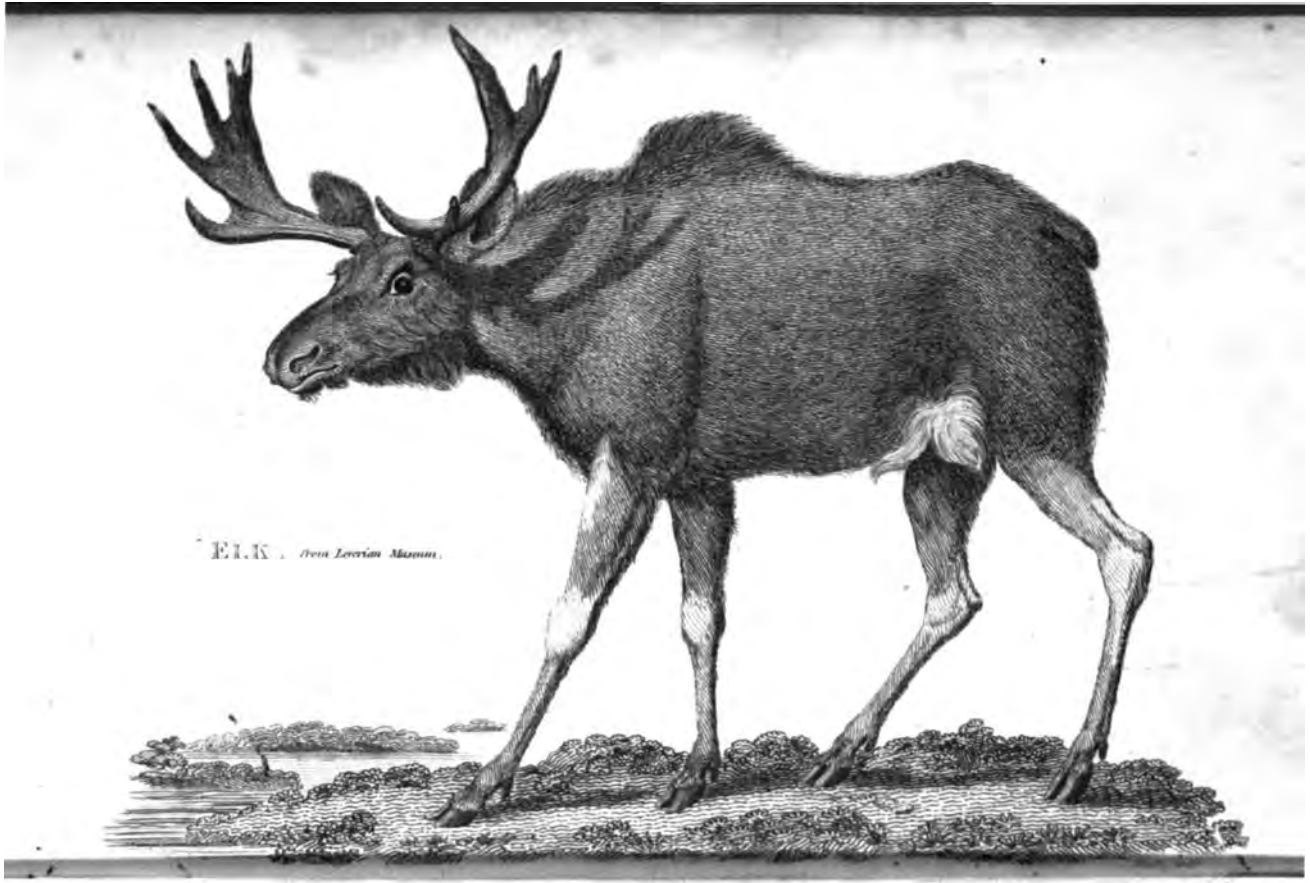
Cervus Alces. The Elk. *Museum Leverianum, vol. 1. p. 33. pl. 8.*

THE Elk, by far the largest animal of this genus, is, when full grown, scarcely inferior to a horse in size. It is common to both continents, inhabiting only the coldest regions, and is ob-

served to arrive at a greater magnitude in Asia and America than in Europe. In its shape it is much less elegant than the rest of the deer tribe, having a very short and thick neck, a large head, horns dilating almost immediately from the base into a broad palmated form, a thick, broad, heavy upper lip, hanging very much over the lower, very high shoulders, and long legs. Notwithstanding its awkward proportions, it is, however, of a noble and majestic appearance. It is also a mild and harmless animal, and principally supports itself by brousing the boughs of trees in the vast and dreary forests of the frozen zone.

The colour of the Elk is a dark, greyish brown, much paler, or inclining to whiteness on the legs and beneath the tail. The hair, which is of a strong, coarse, and elastic nature, is much longer on the top of the shoulders and on the ridge of the neck than on other parts, forming a kind of stiffish mane: beneath the neck the hair is also of considerable length, and in some specimens of the animal, a sort of caruncle or pendent excrescence, covered with long hair, is seen hanging from beneath the throat*: the eyes and ears are large; the hoofs broad, and the tail extremely short. The greatest height of the Elk is, according to Mr. Pennant, about seventeen hands, and its

* This indeed forms a part of the specific character, as given by Linnæus; yet it seems not to take place in all individuals, and may probably be more visible or protuberant at some particular seasons than at others.



ELK. *From Leverian Museum.*

greatest weight about 1229 pounds. The horns have been known to weigh fifty-six pounds, and to measure each thirty-two inches in length. The female is rather smaller than the male, and has no horns.

In Europe the Elk is found chiefly in Sweden, Norway, and some parts of Russia. In Asia it occurs in the woody tracts of the Russian dominions, and in Siberia in particular is found of gigantic magnitude. In America it seems to be most common in Canada, and the country round the great lakes, and is called by the name of Moose-Deer. The Elk chuses its residence in the midst of forests, for the convenience of brousing the boughs of trees; for it grazes somewhat difficultly on account of its short neck and long legs. Its general pace is described to be a high, shambling, but very swift trot, the feet being lifted up very high, and the hoofs clattering* much during their motion, as is the case also with the Rein-Deer. They feed principally by night, and whenever they graze are observed to chuse an ascending ground, for the greater convenience of reaching the surface with their lips.

The Elk, though naturally of an inoffensive and peaceable disposition, displays a high degree of courage, and even ferocity, when suddenly attacked; defending himself with great vigour, not

* This clattering of the hoofs is denied by some authors, but it is particularly affirmed of the Moose by Mr. Pennant in his Arctic Zoology.

only with his horns, but also by striking violently with his fore feet, in the use of which he is so dextrous as easily to kill a dog, or even a wolf, at a single blow.

The chace of the Elk or Moose forms an important occupation among the natives of North America, and is performed in different methods. First, before the rivers and lakes are frozen; when multitudes of the savages assemble in their canoes, and form with them a vast crescent, each horn touching the shore. Another party perform their share of the chace among the woods; surrounding an extensive tract, letting loose their dogs, and pressing towards the water with loud cries. The animals, alarmed by the noise, fly before the hunters, and plunge into the lake, where they are killed by the persons in the canoes, prepared for their reception, with lances and clubs.

The other method is more artful. The savages enclose a large space with stakes, hedged with branches of trees, forming two sides of a triangle: the bottom opens into a second space completely triangular. At the opening are hung numbers of snares made of slips of raw hides. The Indians, as before, assemble in great troops, and with all kinds of noises drive into the first inclosure not only the Mooses, but the other kinds of deer which abound in the country: some in forcing their way into the farthest triangle are caught in the snares by the neck or horns; and those which escape the snares, and pass the little opening, find their fate from the arrows directed at them from all quarters.

They are also often killed with the gun. When first dislodged, the animal falls down or squats, as if disabled, for a moment or two, at which instant the sportsman fires: if he misses, the Moose sets off in a most rapid trot, making, like the reindeer, a prodigious clattering with the hoofs, and will run perhaps twenty or thirty miles before it comes to bay, or takes to the water. But the usual time for this diversion is the winter. The hunters avoid entering on the chace till the sun is strong enough to melt the frozen crust with which the snow is covered; otherwise the animal can run over the firm surface: they wait till it becomes soft enough to impede the flight of the Moose, which sinks up to the shoulders, flounders, and gets on with great difficulty. The hunter pursues at his ease on his broad rackets or snow-shoes, and makes a ready prey of the distressed animal.

The figure of the Elk given in the 12th vol. of the Count de Buffon's Natural History, is so unlike the animal, that I can hardly conceive it to represent the real Elk, but rather the large American Deer or Orignal, since the neck, instead of being very thick and short, as in the Elk, is, on the contrary, represented as of a slender and highly elegant shape, and pretty well represents that of the animal before mentioned. In the 7th supplemental volume is, however, given a tolerable figure of a young Elk; but the animal at that period differs considerably in its appearance from that which it assumes when full grown.

We are informed on the authority of Mr. Oedman, as communicated to Mr. Pennant, that the Elk is now become very rare in the southern parts of Sweden, though by no means uncommon in the northern districts.

An ancient superstition has prevailed in many parts of the European world, that the Elk is naturally subject to the epilepsy; and that it finds its cure by scratching its ear with the hoof till it draws blood. In consequence of this notion, the hoof of the Elk forms an article of the ancient materia medica. This absurdity seems to have originated from the circumstance which is said often to take place when the Elk is first started, viz. that the animal, through sudden fear or surprise, falls down, as if disabled, and does not recover the complete use of its limbs till some seconds have elapsed. A piece of the hoof was anciently set in a ring, and worn as a preservative against the complaint above mentioned; and sometimes the hoof was held in the patient's hand, or applied to the pulse, or put to the left ear, or suspended from the neck in such a manner as to touch the breast, &c. &c. &c.

In Josselyn's Voyages to New England* the American Moose is mentioned as being sometimes

* This book, which is written in an odd, rambling, quaint style, was published in 1674. The account of the Moose is as follows:

"The *Moose* or *Elke* is a creature, or rather, if you will, a monster of superfluity; a full grown *Moose* is many times bigger than an English Oxe, their horns as I have said elsewhere, very big (and brancht out into palms) the tips whereof are sometimes found to

seen thirty-three hands, or twelve feet high, and other writers have said that its horns have been known to weigh between three and four hundred pounds; but these are accounts which seem to deserve but little credit, and are probably owing to the vague and uncertain descriptions communicated by the Indian tribes.

That some animal, however, of the deer kind, far superior in size to any at present known, does either exist, or has at least existed, is sufficiently proved by the enormous fossil horns which are often found at a considerable depth in the bogs of Ireland, as well as in America and other parts of the world; and which have by many been supposed to belong to the Elk or Moose. Their appearance, however, differs so considerably from

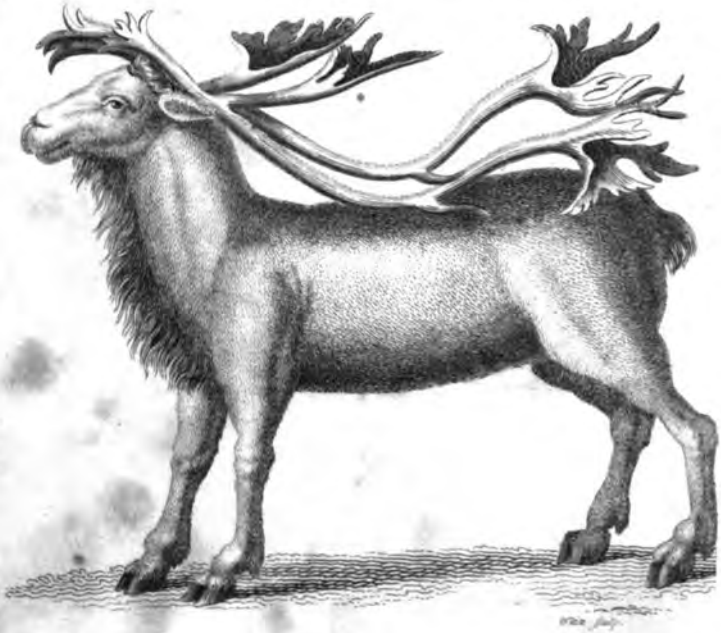
be two fathom asunder, (a fathom is six feet from the tip of one finger to the tip of the other, that is four cubits,) and in height from the toe of the fore-feet to the pitch of the shoulder twelve foot, both which hath been taken by some of my *sceptique* readers to be monstrous lyes. If you consider the breadth that the beast carrieth, and the magnitude of the horns, you will be easily induced to contribute your belief. And for their height since I came into England I have read Dr. Schroderus his chymical dispensatory translated into *English* by *Dr. Rowland*, where he writes *that when he lived in Finland under Gustavus Horn, he saw an Elke that was killed and presented to Gustavus his mother, seventeen spans high.* Lo you now sirs of the gibing crue, if you have any skill in mensuration, tell me what difference there is between seventeen spans and twelve foot. There are certain transcendentia in every creature, which are the indelible characters of God, and which discover God; there's a prudential for you, as *John Rhodes* the fisherman used to say to his mate *Kitt Iux.*"—*Account of two voyages to New England, &c. by* JOHN JOSSELYN, *gent. p.* 88.

the horns of these animals, that it seems now pretty generally agreed among naturalists, that they must have belonged to some species either quite extinct or hitherto undiscovered. They are much longer and narrrower in proportion than those of the Elk, and are furnished with brow antlers; and the processes or divisions into which the sides and extremities run are much longer, sharper, and more distant in proportion. These horns have been sometimes found of the length of eight feet each; and have measured fourteen feet between tip and tip, when adhering to the skull. The whole skeleton is said to have been sometimes found also. Specimens of these horns occur in most of our museums, and are justly considered as some of the most interesting examples of fossil zoology. It is, indeed, impossible to view without astonishment such immense productions, and at the same time to recollect that they were annually shed and reproduced.

It was probably some specimen of this kind that gave rise to the lines of Waller:

"So we some antique heroe's strength
Learn by his lance's weight and length;
As these vast beams express the beast
Whose shady brows alive they drest.
Such game, while yet the world was new,
The mighty Nimrod did pursue.
What huntsman of our feeble race,
Or dogs, dare such a monster chace?
Resembling, at each blow he strikes,
The charge of a whole troop of pikes.
O fertile head! which every year
Could such a crop of wonder bear!

REIN DEER



Sec. Jan. 1. London Publish'd by G. Kearsley Fleet Street.

The teeming earth did never bring
So soon, so hard, so huge a thing:
Which, might it never have been cast
(Each year's growth added to the last),
These lofty branches had supply'd
The earth's bold son's prodigious pride:
Heav'n with these engines had been scal'd,
When mountains heap'd on mountains fail'd."

REIN DEER.

Cervus Tarandus. *C. cornibus ramosis recurvatis teretibus; summitatibus palmatis. Lin. Syst. Nat. p.* 98.
Deer with branched, recurvate, round horns, with palmated extremities.
Tarandus. *Plin. Hist. Nat.* 8. *c.* 34. *Aldr. bisulc. p.* 859. *and fig. p.* 861. *Jonst. Quadr. p.* 90. *t.* 37. 36.
Rangifer. *Gesn. Quadr. p.* 950. *ic. Quadr. p.* 62.
Cervus rangifer. *Ray. syn. Quadr.* 88.
Le Renne. *Buff.* 12. *p.* 79. *and Suppl.* 3. *p.* 132. *pl.* 18.
Rein Deer. *Pennant Quadr.* 1. *p.* 111.

The Rein Deer, like the Elk, is an inhabitant of the northern regions. In Europe its chief residence is in Norway and Lapland. In Asia it frequents the north coast as far as Kamtschatka, and the inland parts as far as Siberia. In America it occurs in Greenland, and does not extend farther south than Canada*. The height of a full grown Rein Deer is, according to Mr. Pennant, four feet six inches: the body is of a somewhat thick and square form; and the legs shorter in proportion than those of the stag. Its general

* Pennant.

colour is brown above and white beneath, but as it advances in age, it often becomes of a greyish white, and sometimes almost entirely white: the space about the eyes is always black: the hair on the under part of the neck is of much greater length than the rest, and forms a kind of hanging beard in that part: both sexes are furnished with horns, but those of the male are much larger and longer than those of the female: the hoofs are long, large, and black, as are also the false or secondary hoofs behind; and these latter, while the animal is running, make by their collision a remarkable clattering sound, which may be heard at a considerable distance.

No animal of this tribe appears to vary so much in the form and length of its horns as the Rein Deer, the individuals of which, according to age and other circumstances, present so different an appearance in this respect, that a person inconversant in the history of the animal, would, at first sight, hardly suppose them to belong to the same species. In general the horns are remarkable for their great length, and proportional slenderness, and are furnished with a pair of brow antlers, with widely expanded and palmated tips directed forwards: towards the middle part of the horn rises another large branch, directed upwards, and branched at the tip; the remainder of the horn runs on to a great length in a backward direction, and is more or less branched at the end. In the young and middle aged Rein Deer the horns are remarkable for their slender form; but as the animal advances in age they are of a stronger appear-

ance, as in the annexed figure of the male, which was first given by Gesner, and which is pronounced by Linnæus a good representation: the figure of the female is taken from the celebrated work of Ridinger, and has also been published in the third supplemental volume of the Count de Buffon's Natural History.

The Rein Deer is celebrated for its services to the simple and harmless inhabitants of Lapland, who, undisturbed by the sound of war, or the troubles of commerce, lead a kind of pastoral life, even within the frozen limits of the Arctic circle, and have no other cares than those of providing for the rigours of their long winter, and of rearing and supporting their numerous herds of Rein Deer, which may be said to constitute almost their whole wealth, and which are used not only for the purposes of food, but for travelling occasionally over that frozen country during the winter season.

Linnæus, in his Flora Lapponica, gives a very flattering description of the felicity of a Laplander's life:

"O felix Lappo! qui in ultimo angulo mundi sic bene lates contentus et innocens. Tu nec times annonæ caritatem, nec Martis prælia, quæ ad tuas oras pervenire nequeunt, sed florentissimas Europæ provincias et urbes, unico momento, sæpe dejiciunt, delent. Tu dormis hic sub tua pelle ab omnibus curis, contentionibus, rixis liber, ignorans quid sit invidia. Tu nulla nosti nisi tonantis Jovis fulmina. Tu ducis innocentissi-

mos tuos annos ultra centenarium numerum cum facili senectute et summa sanitate. Te latent myriades morborum nobis Europæis communes. Tu vivis in sylvis, avis instar, nec sementem facis, nec metis, tamen alit te Deus optimus optime. Tua ornamenta sunt tremula arborum folia, graminosique luci; tuus potus aqua crystallinæ pelluciditatis, quæ nec cerebrum insania adficit, nec strumas in Alpibus tuis producit. Cibus tuus est vel verno tempore piscis recens, vel æstivo serum lactis, vel autumnali tetrao, vel hyemali caro recens rangiferina absque sale et pane, singula vice unico constans ferculo, edis dum securus e lecto surgis, dumque eum petis, nec nosti venena nostra, quæ latent sub dulci melle. Te non obruit scorbutus, nec febris intermittens, nec obesitas, nec podagra, fibroso gaudes corpore et alacri, animoque libero. O sancta innocentia, estne hic tuus thronus inter Faunos in summo septentrione, inque vilissima habita terra? numne sic præfers stragula hæc betulina mollibus serico tectis plumis? Sic etiam credidere veteres, nec male."

Of this eulogy the English reader must be content with the following somewhat abbreviated translation, or rather imitation.

O favour'd race! whom partial Heav'n design'd
To free from all the cares that vex mankind!
In life's mad scenes while wayward nations join,
One silent corner of the world is thine;
From busy toil, from raging passions free,
And war, dire stain of laps'd humanity!
Far from thy plains the hideous monster roves,
Nor dares pollute thy consecrated groves.

Indulgent Nature yields her free supplies,
And bids thy simple food around thee rise.
Along thy shores the scaly myriads play,
And gathering birds pursue their airy way.
Gurgles to quench thy thirst the crystal spring,
And ranging herds their milky tribute bring.
No fell disease attacks thy hardy frame,
Or damps with sullen cloud the vital flame;
But flies to plague amid their tainted sky
The sick'ning sons of full-fed luxury.
Thy aged sires can boast a cent'ry past,
And life's clear lamp burns briskly to the last.
In woods and groves, beneath the trembling spray,
Glides on, in sweet content, thy peaceful day:
Gay exercise with ruddy health combin'd,
And, far beyond the rest! the freedom of the mind.
Here stands secure, beneath the northern zone,
O sacred Innocence, thy turf-built throne:
'Tis here thou wav'st aloft thy snowy wings,
Far from the pride of courts and pomp of kings.

It is true there are some drawbacks on this scene of felicity. The winter may be said to continue nearly nine months, and is of a rigour unknown in the more southern regions of the world: the sun is invisible for a certain period, and the moon and stars, with the frequent coruscations of the aurora borealis, and the reflection from the snow, constitute the only light afforded by Nature. During this season, therefore, the inhabitants must of necessity experience all the horrors atendant on a northern winter. The short summer, on the contrary, when once fairly commenced, is scarce less oppressive, from the innumerable legions of musquitoes, which abound to

such a degree in the marshy districts, as to oblige the inhabitants, in order to walk abroad with common comfort, to anoint their faces with a mixture of tar and milk, which composition is in universal use at that season; men, women, and children, being alike smeared with the black cosmetic, as Linnæus quaintly terms it. In reality, therefore, the great happiness of the Laplanders consists in being free from the calamities of war, from most of the diseases of Europe, and in being ignorant of the wants of luxury, arising from the more artificial life of polished nations.

Their manner of travelling in sledges, drawn by Rein Deer, has been described by various authors.

There are in Lapland two races of Rein Deer, the wild and the tame. The latter are far preferable to the former for drawing the sledge, to which the Laplander accustoms them betimes, yoking them to it by a strap, which goes round the neck, and comes down between the legs. The sledge is extremely light, and covered at the bottom with the skin of a young deer, the hair turned to slide on the frozen snow. The person who sits on this guides the animal with a cord, fastened round the horns, and encourages it to proceed with his voice, and drives it with a goad. Some of the wild breed, though by far the strongest, are yet found refractory, and often turn upon their drivers, who have then no other resource but to cover themselves with the sledge, and let the animal vent its

fury upon that. But it is otherwise with those that are tame; no creature can be more active, patient, and willing: when hard pushed, they will trot nine or ten Swedish miles, it is said, or between fifty and sixty English miles, at one stretch; but in such a case the poor obedient creature fatigues itself to death; and if not killed immediately by its owner, will die in a day or two after. In general they can go about thirty miles without halting, and without any great or dangerous efforts. This, which is the only way of travelling in Lapland, can be performed to advantage only when the snow is glazed over with ice: and though it be a speedy method of conveyance, yet it is inconvenient, dangerous, and troublesome.

The chief food of the Rein Deer is a species of Lichen, commonly called the Rein-Deer moss, which covers vast tracts of the northern regions, and on which these animals particularly delight to brouze. In summer they readily obtain it in vast plenty, and in winter dig with their horns through the snow to arrive at it.

With the Laplanders this animal is at once the substitute of the Horse, the Cow, the Sheep, and Goat.

Those innocent people have subdued it to various uses, and reclaimed it from its wild state. They devote their whole care to its management; occasionally housing and nursing their herds during the winter, and attending them during the summer to the tops of their mountains, and to the sides of their clear lakes and streams, which are

said to be often bordered with native* roses. They understand all the arts of the dairy, and from the milk of their deer prepare many of their most nourishing and agreeable repasts.

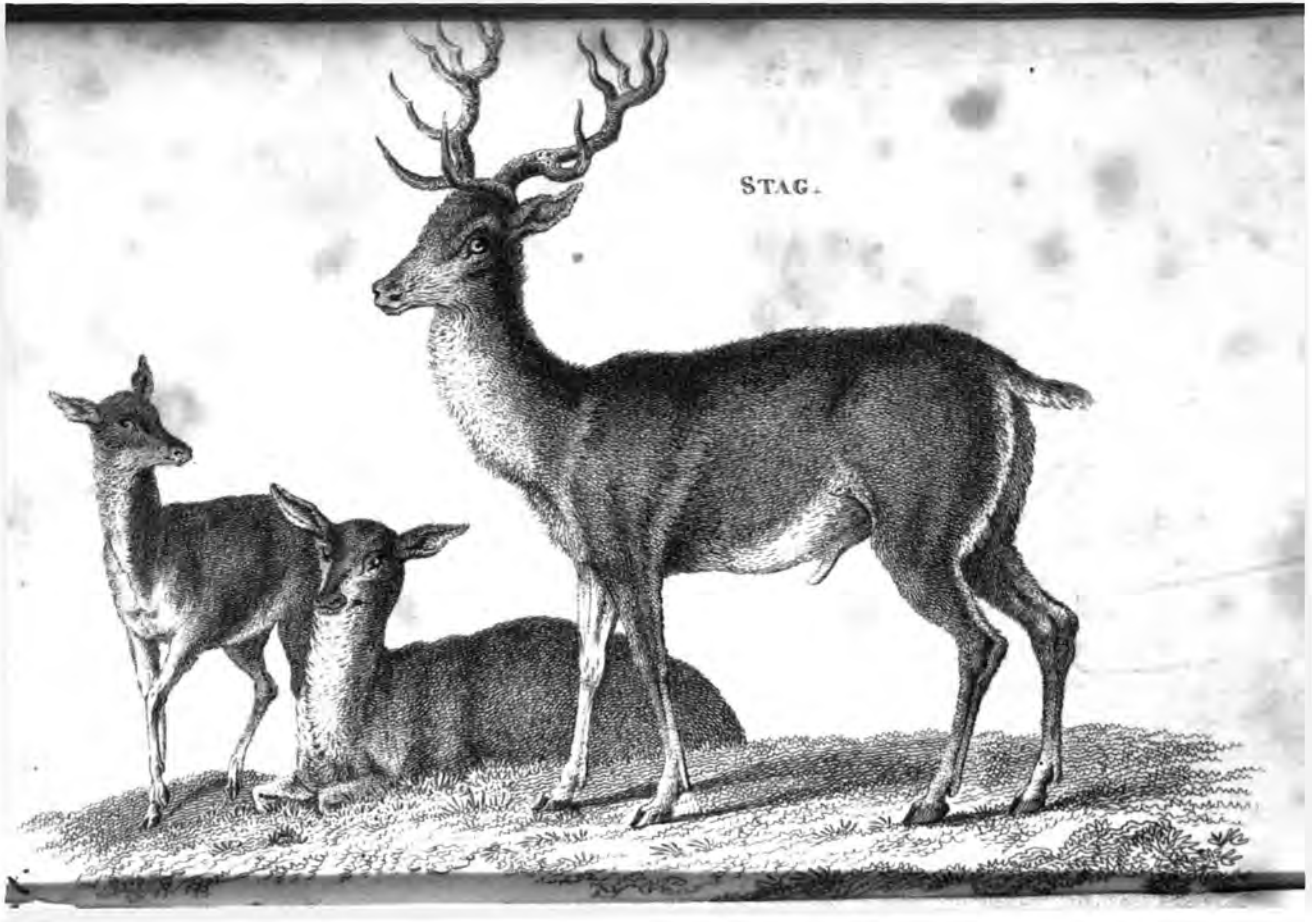
STAG.

Cervus Elaphus. *C. cornibus ramosis, totis teretibus recurvatis. Lin. Syst. Nat. p.* 98.
Rufous-brown Deer, with cylindric, recurvate, branching horns.
Cervus. *Plin. Hist. Nat.* 8. *ch.* 32. *Gesn. Quadr. p.* 354. *Aldr. bisulc. p.* 769. *fig. p.* 774. *Jonst. Quadr. p.* 82. *t.* 32. 35.
Le Cerf. *Buff.* 6. *p.* 63. *pl.* 9, 10.
Stag or Red Deer. *Penn. Brit. Zool.* 1. 35. *No.* 6.
Stag. *Pennant Quadr.* 1. *p.* 114.
The Stag, Hart, or Red Deer, *male*. The Hind, *female*.

THE Stag, says Buffon, is one of those innocent and peaceable animals that seem destined to embellish the forest, and animate the solitudes of Nature. The elegance of his form, the lightness of his motions, the strength of his limbs, and the branching horns with which his head is decorated, conspire to give him a high rank among quadrupeds, and to render him worthy the admiration of mankind.

* This remarkable circumstance is mentioned by Maupertuis in his work on the figure of the earth. He assures us that on the banks of the river Tenglio in Lapland he saw roses † of as bright a red as he had ever observed in gardens.

† I know not what kind of roses these could be: Linnæus commemorates no such in his Flora Lapponica.


STAG.

The Stag varies both in size and colour in different countries, but is generally about three feet and a half high; and of a reddish brown colour, whitish beneath. Sometimes it is of a very dark or blackish brown; sometimes, of a pale or yellow-brown, and lastly, instances occur of Stags entirely white. The horns vary as to size and number of ramifications according to the age of the animal, and, as in others of this genus, are annually cast. The general number of branches in a well grown Stag seems to be six or seven, but they are sometimes far more numerous*.

The Stag is a native of almost all the temperate parts of Europe, as well as of Asia. It also occurs in North America, where it occasionally arrives at a larger† size than in the old continent, except in Siberia, where, according to Mr. Pennant, it is found of gigantic magnitude. In America the Stag, like many other native animals, has gradually receded from particular regions in proportion to increased cultivation. We are informed by Kalm, that an old Indian, who was living in the year 1748, had killed several Stags on the spot where the city of Philadelphia now stands.

The Stag is supposed to have been originally introduced into our own island from France, where it is very common. Mr. Pennant remarks, that

* Many curious varieties of this kind may be found in the works of Ridinger.

† Lawson, on the contrary, says the American stag is smaller than the European, though fatter.

it is still found in a state of nature in the Highlands of Scotland. In reality it has been in a great degree expelled from most parts of the kingdom to make way for the common or Fallow Deer, the venison of which is far superior to that of the Stag, and the animal itself of a more placid and manageable disposition.

The Stag, like some others of this tribe, is naturally gregarious; assembling in herds in the forests, and brousing the leaves of young shoots of trees, &c.

"The size and stature of these animals (says Buffon) differ according to the places they inhabit: those which frequent the valleys, or hills abounding in grain, are larger and taller than those which feed upon dry and rocky mountains. The latter are low, thick, and short: neither are they equally swift; though they run longer than the former: they are also more vicious, and have longer hair on their heads: their horns are commonly short and black, like a stunted tree, the bark of which is always of a darker colour; but the horns of the stags which feed in the plains are high, and of a clear reddish colour, like the wood and bark of trees which grow in a good soil. These little squat stags never frequent the lofty woods, but keep always among the coppices, where they can more easily elude the pursuit of the dogs. The Corsican appears to be the smallest of these mountain stags. He exceeds not half the height of the ordinary kind, and may be re-

garded as a terrier among stags. His colour is brown, his body squat, and his legs short; and what convinces me that the size and stature of stags in general depend on the quantity and quality of their food, is, that having reared one at my house, and fed him very plentifully for four years, he was much taller, thicker, and plumper at that age than the oldest stags in my woods, which are, however, of a very good size.

"The Stag appears to have a fine eye, an acute smell, and an excellent ear. When listening, he raises his head, erects his ears, and hears from a great distance. When going into a coppice or other half covered place, he stops to look round him on all sides, and scents the wind, to discover if any object be near that might disturb him. He is a simple, yet a curious and crafty animal. When hissed or called to from a distance, he stops short, and looks steadfastly, and with a kind of admiration, at carriages, cattle, or men; and if they have neither arms nor dogs, he moves on unconcernedly, and without flying. He appears to listen with great tranquillity and delight to the shepherd's pipe*, and the hunters sometimes employ this artifice to encourage and deceive him. In general he is less afraid of men

* In Playford's Introduction to Music, is the following passage: "Myself, as I travelled some years since near Royston, met a herd of Stags, about twenty, on the road, following a bag-pipe and violin; which, while the music played, they went forward, when it ceased, they all stood still; and in this manner they were brought out of Yorkshire to Hampton-court."

than of dogs, and is never suspicious, or uses any arts of concealment, but in proportion to the disturbances he has received. He eats slow, and has a choice in his aliments; and after his stomach is full, he lies down and ruminates at leisure. He seems to ruminate with less facility than the ox, and it is only by violent shakes that the stag can make the food rise from his first stomach. This difficulty proceeds from the length and direction of the passage through which the aliment must pass: the neck of the ox is short and strait, but that of the stag is long and arched, and consequently greater efforts are required in rumination.

"In winter and spring the stag does not drink, the dews and tender herbage being sufficient to extinguish his thirst; but during the parching heats of summer he frequents the brooks, marshes, and fountains, and in autumn is so over-heated that he searches every where for water to bathe and refresh his body. He then swims easier than any other time on account of his fatness, and has been observed crossing very large rivers. He leaps still more nimbly than he swims, and when pursued, can readily clear a hedge or pale of six feet high. The food of stags varies according to the season. In autumn they search for the buds of green shrubs, the flowers of broom or heath, the leaves of brambles, &c. During the snows of winter they feed on the bark, moss, &c. of trees, and in mild weather they brouze in the corn fields. In the beginning of spring they go in quest of the catkins of the trembling poplar,

willow, and hazel; the flowers and buds of the cornel, &c. In summer, when they have great choice, they prefer rye to all other grain, and the black berry-bearing Alder (Rhamnus Frangula) to all other wood. The flesh of the fawn is very good: that of the female or hind not bad, but of the stag is strong, and of an unpleasant flavour: the skin and the horns are the most useful parts of the animal; the former making a very pliable and durable leather, while the latter are used by cutlers and other artificers for various purposes of manufacture."

Stags in general cast or shed their horns sooner or later in the month of March, in proportion to their ages. At the end of June they are full-grown, and the animal rubs them strongly against the boughs of trees, or any convenient object, in order to free them from the skin, which is now become useless, and by the beginning of August they begin to assume the full strength and consistence which they retain throughout the remainder of the year.

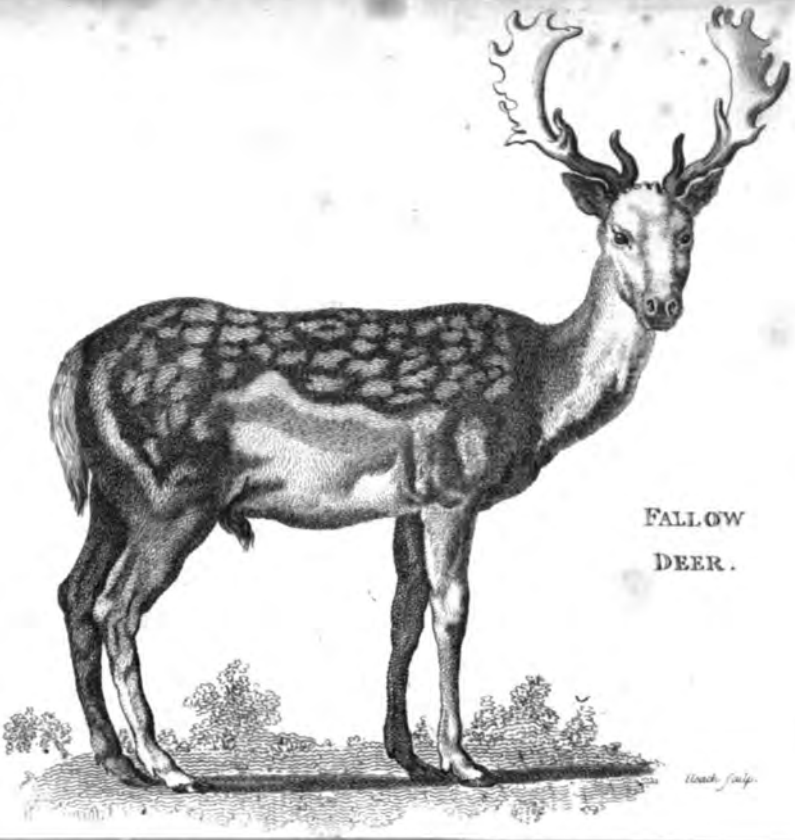
It is hardly necessary to add, that the longevity of the Stag, which became proverbial among the ancients, is, in some degree, a vulgar error; for though the animal, compared with many other quadrupeds, may be justly considered as long-lived, since it is supposed in some instances to arrive at the age of thirty-five or forty years, yet it is by no means possessed of the longevity anciently attributed to it, which is merely a popular preju-

dice, sufficiently contradicted by the experience of later ages. Indeed it should not be forgotten that Aristotle opposed the common prejudice, and contended that the nature of the animal afforded no probable argument in favour of its longevity.

FALLOW DEER.

Cervus Dama. *C. cornibus ramosis recurvatis compressis, summitate palmata. Lin. Syst. Nat. p.* 98.
Yellowish-brown Deer, with slightly recurvate, compressed, branching horns, palmated at the top.
Platyceros. *Plin. Hist. Nat.* II. *c.* 37.
Cervus platyceros. *Raj. Quadr. p.* 85.
Dama vulgaris. *Gesn.* 335. *Aldr. bisulc.* 741.
Le Daim & La Daine. *Buff.* 6. *p.* 167. *pl.* 27, 28.
The common Buck and Doe.
Fallow Deer. *Pennant Quadr.* 1. *p.* 113.

THE Fallow Deer is considerably smaller than the Stag, and is of a brownish bay colour, more or less deep in different individuals; whitish beneath, on the insides of the limbs, and beneath the tail, which is somewhat longer in proportion than that of the stag, and is commonly bounded on each side by a descending streak of black, but the principal mark of distinction between this species and the stag, is the form of the horns, which, as in the stag, are peculiar to the male, and are dilated at the upper part, and palmated, or divided into processes which are continued to a considerable distance down the outside of each



FALLOW
DEER.

DOE OR FEMALE FALLOW DEER.

Jan. 1st London Published by C. Kearsley Fleet Street

horn. An antler or simple slender process rises from the base of each, and a similar one at some distance above the first; both pointing somewhat forwards. In its general form the animal greatly resembles the stag, having the same elegance of aspect, with a more gentle disposition.

The Fallow Deer is not so universal as the stag, and is even a rare animal in some parts of Europe, as in France and Germany, but in Spain is said to be found nearly equal to the stag in size. It occurs, according to Mr. Pennant, in the woods of Lithuania and Moldavia, as well as in Greece, Palestine, and the northern parts of China. In America it has never been found, the animals sometimes called American Fallow Deer belonging to a different species, peculiar to that continent.

The manners of the Fallow Deer resemble those of the stag, but it is observed to be less delicate in the choice of its food; eating a variety of vegetables which are refused by the former. It arrives at full growth and perfection in about three years, and is said to live about twenty.

The horns are annually shed, as in the stag, but at a somewhat later period. At their first appearance they resemble a pair of soft tumid knobs or tubercles, and are covered with a villous and very vascular skin: they gradually enlarge, lengthen, and widen at their tops; and when at full growth, the skin, with all its apparatus of vessels, which had served to nourish the horns, being grown useless, is rubbed off by the animal,

the impressions of the blood-vessels still remaining on the complete horn in the form of so many ramified furrows.

VIRGINIAN DEER.

Cervus Virginianus. *C. cornibus ramosis antrorsum versis parum palmatis. Lin. Syst. Nat. Gmel. p.* 179.
Pale-brown Deer, with slender round branched horns, bending forward, and slightly palmated at the top.
Dama Virginiana. *Raj. Quadr. p.* 86.
Fallow Deer. *Laws. Carol. p.* 123. *Catesb. Carol. app. p.* 28.
Virginian Deer. *Pennant Quadr.* 1 *p.* 116.

THE Virginian Deer is a native of the northern parts of America, where it is found in vast herds, and is an animal of great importance to the Indian natives, who dry its flesh for their winter provision: the skin also constitutes a great article of commerce, vast numbers being annually imported from the colonies; in the year 1764 not fewer, according to Mr. Pennant, than 25,027 from New York and Pensylvania.

The size of the animal is that of the Fallow Deer: its colour a light cinereous brown; the head of a deeper cast, and the belly, sides, shoulders, and thighs, whitish, mottled with brown: the tail is about ten inches long, and is dusky above and white below: the horns slender, bending very much forwards, with numerous branches on the interior sides, and no brow antlers.

This species appears to occur in almost all parts

180
PORCINE DEER. mr.
SPOTTED AXIS.
1801 Jan.y 1. London Publish'd by G. Kearsley Fleet Street.

of North America, except Canada, and is found in the greatest abundance in the vast savannas contiguous to the Missisipi and the great rivers which flow into it; grazing in herds innumerable along with stags and bufaloes. They are sometimes tamed, and used by the Indians, after being properly trained, to decoy the wild deer within shot. They are of a restless and wandering disposition, and in hard winters are observed to feed much on the different species of Usnea or string-moss, which hangs from the trees. They are also fond of resorting to places impregnated with salt, and in such spots may be seen in great numbers, licking the earth. Such spots are called in America by the name of Licking-places, and the hunters are sure of finding plenty of game there; the animals, though so frequently disturbed, still continuing to frequent their favourite haunts.

SPOTTED AXIS.

Cervus Axis. *C. cornibus ramosis teretibus erectis, summitate bifida, corpore albo-maculato. Lin. Syst. Nat. Gmel. p.* 179. *Erxl. mamm. p.* 312.

Pale rufous brown Deer, spotted with white, with slender trifurcated horns.

Axis. *Plin. Hist. Nat.* 8. *c.* 21. *Raj. Quadr. p.* 89.

L'Axis. *Buff.* 11. *p.* 397. *pl.* 38, 39.

Spotted Axis. *Pennant Quadr.* 1. *p.* 117.

The Axis is one of the most beautiful animals of this genus, and is commonly known by the

name of the *Ganges Stag*. Its size is nearly that of the Fallow Deer, and its colour an elegant light rufous-brown, distinctly and beautifully marked with very numerous white spots: the under parts are paler, and a line of white generally separates the colour of the upper from the lower parts: the tail resembles that of the Fallow Deer, and is reddish above and white beneath.

This species is said to be very common in some parts of India about the banks of the Ganges, and in the island of Ceylon. It is described by Pliny among the animals of India, and is said to have been sacred to Bacchus. It has been introduced into Europe, and is occasionally seen in parks and menageries. It is readily tamed, and seems to suffer but little from a change of climate.

MIDDLE AXIS.

Whether this be a variety of the former or specifically distinct does not appear perfectly clear. It is, according to Mr. Pennant, of a middle size, between the *Spotted Axis* and the *Great Axis*, or following kind. In the colour of its hair it resembles the first sort, but is never spotted. It, however, is said to vary into white, in which state it is considered as a great rarity. It inhabits dry hilly forests in Ceylon, Borneo, Celebes, and Java, where it is found in very numerous herds. Its flesh is much esteemed by the natives, and is dried and salted for use.

GREAT AXIS.

THE existence of this species, or variety, is ascertained from a pair of horns in the British Museum, resembling the former kinds in shape, but of larger size: they measure two feet nine inches in length, are of a whitish colour, and are very strong, thick, and rugged. Mr. Pennant conjectures that they were brought from Ceylon or Borneo, having been informed by Mr. Loten, who had long resided in the former of these islands, that a very large kind of stag, as tall as a horse, of a reddish colour, and with trifurcated horns, existed there as well as in Borneo. In Borneo they are said to frequent low marshy tracts, and to be called by the name of Water Stags.

TAILLESS ROE.

Cervus Pygargus. *C. cauda nulla, cornibus trifurcis. Lin. Syst. Nat. Gmel. p.* 175. *Pall. it.* 1. *p.* 97.
Tailless brown Deer, yellowish beneath, white behind, with trifurcated horns, and nose surrounded with black.
Cervus Aha. *S. G. Gmelin it.* 3. *p.* 496. *t.* 56.
Tailless Deer. *Pennant Quadr.* 1. *p.* 121.

THIS species is described in the first volume of Dr. Pallas's Travels, and is a native of the mountainous parts of Hircania, Russia, and Siberia; inhabiting the loftiest parts of those regions, but

in winter descending into the plains, the hair at that season assuming a hoary appearance. In its form it resembles the Roebuck, but is larger. Its colour is brown, with the outsides of the limbs and under parts of the body yellowish: the hinder parts of the thighs are white, forming a large bed or patch of that colour on the back part of the animal: the space round the nose, and sides of the lower lip, are black, but the tip of the lip itself white: the horns are strongly tuberculated at the base; the ears lined within with short white hair, and the orbits of the eyes surrounded with long black hairs. The whole coat of the animal is excessively thick, and in the spring grows remarkably rough and erect. It has no tail, but a mere broadish cutaneous excrescence.

MEXICAN ROE.

Cervus Mexicanus. *C. cornibus apice trifurcatis antrorsum versis, rufus. Lin. Syst. Nat. Gmel. p.* 179.
Rufous Deer, with rough trifurcated horns, bending forward.
Chevreul d'Amerique. *Buff. 6. p.* 210. 243.
Teultal maçame. *Hernandez An. Mexic.* 324.
Mexican Deer. *Pennant Quadr.* 1. *p.* 122.

Our chief knowledge of this species is derived from the information of Hernandez, who in his history of Mexico informs us that it is a native of that province; but it is also found in Guiana, Brasil, &c. It is about the size of the common or European Roebuck, and of a reddish colour, but,

when young, is often spotted with white. The horns are thick, strong, and rugged: they bend forwards, and are about ten inches long, and trifurcated on the upper part; but they sometimes vary in the number of branches or processes: the head is large; the eyes large and bright, and the neck thick. The flesh is said to be far inferior to the venison of Europe.

Var. ?

INDIAN ROE.

Mr. Pennant describes, from the Museum of the Royal Society (now translated to the British Museum), a pair of horns of some animal of the Roebuck kind, styled by Grew, in his description of the above-mentioned Museum, *Horns of an Indian Roebuck.* They are sixteen inches long, and the same between tip and tip: they are very large, thick, strong, and rugged; and near the base of each is an upright forked branch; the ends bend forwards, and divide into two branches, each furnished with numerous snags or processes.

PORCINE DEER.

Cervus Porcinus. *C. cornibus gracilibus trifurcis, supra fuscus, subtus cinereus. Lin. Syst. Nat. Gmel. p.* 179.
Brown Deer, ash-coloured beneath, with slender trifurcated horns.
Porcine Deer. *Pennant Quadr.* 1. *p.* 119.
Cerf-Cochon. *Buff. Suppl.* 3. *p.* 122. *pl.* 18.?

THE Porcine Deer of Pennant has slender trifurcated horns, thirteen inches long and six inches distant at the base: the head is ten inches and a half long: the body, from the tip of the nose to the tail, three feet six inches: the height, from the shoulders to the hoof, two feet two inches; and about two inches higher behind: the length of the tail is eight inches: the body is thick and clumsy; the legs fine and slender: the colour, on the upper part of the neck, body, and sides, is brown; the belly and rump lighter.

The specimen described by Mr. Pennant was in the possession of the late Lord Clive, and was brought from Bengal. It is also said to be found in Borneo, and to be called Hog Deer, from the thickness of the body. Of their feet, Mr. Pennant says, are made tobacco-stoppers, in the same manner as of those of the smaller kind of Antelopes and Musks.

Var.?

SPOTTED PORCINE DEER.

THE animal described and figured by Buffon, under the title of *Cerf-Cochon*, or Hog Deer, is

spotted in a similar manner with the Axis: the reader will find it figured in the present publication on the same plate with that animal.

COMMON ROE.

Cervus Capreolus. *C. cornibus ramosis teretibus erectis, summitate bifida, corpore fusco-rufo. Lin. Syst. Nat. Gmel. p.* 180.
Rufous-brown Deer, with branching upright cylindric horns, bifid at the top.
Caprea. *Plin. Hist. Nat.* 8. *c.* 53. *Aldr. bisulc.* 738. *Jonst. Quadr. p.* 77. *t.* 31.
Capreolus. *Gesn. Quadr.* 324. 1098.
Le Chevreuil. *Buff.* 6. *p.* 198. *pl.* 32, 33.
Roe. *Pennant Quadr.* 1. *p.* 120.

THE general history of the Roe has been so excellently detailed by the Count de Buffon, that I shall not scruple to insert without any material alteration, his description of its manners, &c. premising only that its colour is a reddish brown, and that it is the smallest of the European animals of this genus.

"As the Stag (says this author) is the noblest inhabitant of the wood, he occupies the deepest shades of the forest, and the most elevated ridges of those mountains which are covered with lofty trees. The Roe, as if inferior in species, contents himself with an humbler residence, and generally dwells among the thick foliage of young brushwood. But if he is inferior to the stag in dignity, strength, and stature, he is endowed with more

gracefulness, vivacity, and courage. He is superior in gaiety, neatness, and sprightliness. His figure is more elegant and handsome. His eyes are more brilliant and animated. His limbs are more nimble, his movements quicker, and he bounds, seemingly without effort, with equal vigor and agility. His coat or hair is always clean, smooth, and glossy. He never wallows in the mire, like the stag. He delights in dry and elevated situations where the air is purest. He is likewise more crafty, conceals himself with greater address, is more difficult to trace, and derives superior resources from instinct: for though he has the misfortune to leave behind him a stronger scent than the stag, which redoubles the ardour and appetite of the dogs, he knows how to withdraw himself from their pursuit, by the rapidity with which he begins his flight, and by his numerous doublings. He delays not his arts of defence till his strength fails him; but as soon as he finds that the first efforts of a rapid chace have been unsuccessful, he repeatedly returns on his former steps; and after confounding, by these opposite movements, the direction he has taken, after intermixing the present with the past emanations from his body, he rises from the earth by a great bound, and retiring to a side, he lies down flat on his belly, and in this immoveable situation, he allows the whole troop of his deceived enemies to pass very near him.

"The Roe differs from the stag and fallow deer in disposition, temperament, manners, and almost

every natural habit. Instead of associating in herds, they live in separate families. The father, mother, and young go together, and never mix with strangers. They are constant in their amours, and never unfaithful, like the stag; and, as the females generally produce two fawns, the one male and the other female, these young animals, brought up and nourished together, acquire so strong a mutual affection, that they never quit each other, unless one of them meets with a misfortune, which never ought to separate lovers.

"During the period in which they are engaged in the task of nursing a new family, they drive off the former brood as if to oblige them to yield their place to those which are to succeed, and to form new families for themselves; but when this season is past, the fawns again return to their mother, and remain with her some time; after which they separate entirely, and remove to a distance from the place which gave them birth.

"The female goes with young five months and a half, and brings forth about the end of April, or beginning of May. The hinds or female stags, on the contrary, go with young above eight months; and this difference is alone sufficient to prove that these animals are so remote from each other in species, as to prevent their ever intermixing or producing an intermediate race. By this difference, as well as that of figure and size, they approach the goat as much as they recede from the stag; for the goat goes with young nearly the same time, and the Roe may be regarded as a wild

goat, which, feeding solely on wood, carries *wood** instead of horns. The female, when about to bring forth, retires to the deepest recesses of the forest. In ten or twelve days the fawns acquire strength sufficient to enable them to follow her. When threatened with danger, she hides them in a close thicket, and to preserve them presents herself to be chased. But, notwithstanding all her care and anxiety, the young are sometimes carried off by men, dogs, or wolves. This is, indeed, the time of their greatest destruction. Of this species, which is not very numerous, I know, from experience, that more are destroyed in the month of May than during all the rest of the year. I often live in a part of France where the Roe is greatly esteemed (*Montbard* in *Burgundy*). Many fawns are annually brought me alive by men, and others killed by dogs, without reckoning those which are devoured by wolves: and I have observed, during the space of more that twenty-five years, that, as if there was a perfect equilibrium between the causes of destruction and renovation, their number is always nearly equal in the same districts. It is not difficult to count them; for they are no where numerous, and they

* The Count de Buffon entertained a singular theory, that the horns of the Deer tribe were a kind of reproduction, as it were, of the trees, &c. on which the animals broused; the nutritious organic moleculæ arranging themselves, in some degree, according to their former figure!!! Under the article *Stag*, in that agreeable writer's natural history, the reader may find this extraordinary notion maintained at some length.

live separately in distinct families. In a coppice, for example, of an hundred acres, there will be one family, or from three to five individuals; for a female which generally produces two fawns, sometimes brings forth but one, and sometimes, though very rarely, three. In another district, of double the extent, there will be seven or eight; that is, two families; and I have remarked, that each district always harbours an equal number, except when the winters have been extremely rigorous and long; in which case the whole family is destroyed; but it is replaced by another the following year; and those districts, for which they have a predilection, are always inhabited nearly by an equal number. It is alledged, however, that in general their number is diminishing. There are whole provinces, it must be acknowledged, in France, where not one of them is to be found. Though common * in Scotland, there are none in England. They are very rare in Italy; and they are now scarcer in Sweden than formerly. But this may have proceeded from the diminution of forests, or from some very severe winter, like that of the year 1709, which almost destroyed all the Roes in Burgundy; so that several years elapsed before the species was recruited. Besides, they are not equally fond of every country; for, in the same countries, they prefer particular places. They love hills, or plains on the tops of mountains.

* Not very common; being found only in the northern parts or Highlands.

They never stay in the deepest recesses of the forests, nor in the middle of extensive woods; but give the preference to the skirts or projections of woods, which are surrounded with cultivated fields, and to open coppices which produce the berry-bearing alder, brambles, &c.

"The fawns continue with their parents eight or nine months, and, when separated, about the end of the first year of their age, the first horns begin to appear, in the form of two knobs, much less than those of the stag. There is still a greater difference between these two animals. The horns of the stag are cast in the spring, and are renewed in summer; but those of the Roe fall off at the end of autumn, and are replaced in winter. When the Roebuck has renewed his horns, he rubs them against the trees, like the stag, in order to free them from the skin with which they are covered; and this commonly happens in the month of March, before the trees begin to shoot. Hence it is not the sap of the wood which colours the horns of the Roe. The horns, however, are brown when the animal is brown, and yellow when he is red. The second horns of the Roe have two or three antlers in each side: the third three or four; the fourth four or five, and they seldom have more. We distinguish the old ones by the thickness of their stems, the largeness of the bur, of the pearlings, &c. As long as the horns continue soft they are extremely sensible. Of this I have had a striking example. The young shoot of a Roebuck's horn was carried off by a ball. The

animal was stunned, and fell down as if he had been dead. The shooter, who was near, seized him by the foot; but the Roebuck suddenly recovering his senses and strength, dragged the man, though he was strong and alert, thirty paces into the wood. After killing him with a knife, we discovered that he had received no other wound. Besides, it is well known that flies are very troublesome to the stag: when his horns are growing, he retires to the deepest parts of the wood, where the flies are less numerous: because, when they fix upon the tender horns, the irritation they cause is insupportable. Thus there is an intimate communication between the soft parts of the horns, and the whole nervous system of the animal. The Roebuck, having nothing to apprehend from the flies, because he renews his horns in winter, never retires in this manner; but he walks with caution, and carries his head low, lest he should touch the branches.

"As the female Roe goes with young only five months and a half, and as the growth of the fawn is more rapid than that of the stag, the duration of her life is much shorter; seldom extending, I imagine, beyond twelve or fifteen years. I have reared several of them; but could never preserve them above five or six years. They are very delicate in the choice of their food, require a great deal of exercise, fine air, and much room, which is the reason why they are unable, except in the first year of their growth, to resist the inconveniences of a domestic life. To make a pair of these

animals live comfortably, they must have a park of an hundred acres. They may be tamed, but can never be rendered obedient or familiar. They always retain a portion of their natural wildness, are easily terrified, and then run with such force against the walls that they often break their limbs. However tame they may be, they cannot be trusted; for the males particularly are subject to dangerous caprices; they take an aversion to certain persons, and make furious attacks with their horns, the blows of which are sufficient to throw a man to the ground, after which they continue to tread on him with their feet. The Roebuck bellows not so frequently, nor with so loud or strong a voice, as the stag. The young ones utter a short or plaintive cry, *mi, mi*, by which they indicate their want of food. This sound is easily imitated, and the mother, deceived by the call, will come up to the very muzzle of the hunter's gun.

"In winter the Roes frequent the thickest coppices, and feed upon brambles, broom, heath, the catkins of the hazel, willow, &c. In spring they repair to the more open brushwood, and eat the buds and young leaves of almost every tree. This warm food ferments in their stomachs, and intoxicates them to such a degree, that they are easily surprised. They know not where they are going, and not unfrequently come out of the wood, and sometimes approach flocks of cattle, and the habitations of men. In summer they dwell in the more elevated coppices, from which they seldom depart, excepting in very dry weather,

when they go to drink at some fountain; for when the dews abound, or the leaves are moistened with rain, they never drink. They are delicate in the choice of their food; they eat not with avidity, like the stag, and they seldom approach the cultivated fields, because they prefer the berry-bearing alder and bramble to grain or pot herbs of any kind.

"Though the flesh of these animals be excellent food, yet it admits of much choice. The quality of the venison depends chiefly on the country they inhabit; and even the best countries produce good and bad kinds. The flesh of the brown Roe is finer than that of the red. All the males, after the age of two years, have hard and ill-tasted flesh; but that of the females, though farther advanced in age, is more tender. That of the fawns, when very young, is loose and soft: but at the age of eighteen months, it is in the highest state of perfection. Those which live in plains and vallies are not good; those which come from moist countries are still worse: those brought up in parks are insipid; and, lastly, there are no good Roes but those of dry elevated countries, interspersed with hills, woods, cultivated and fallow lands, where they enjoy plenty of air, food, freedom, and solitude; for those which have been often disturbed are meagre, and the flesh of those that have been often hunted is dry and insipid."

The Roe, like other quadrupeds, is sometimes found perfectly white, an instance of which is recorded in the Count de Buffon's Natural History.

We are also informed by Count Melfin, in a letter to the Count de Buffon, that a race of coal black Roes exists in a very small German district, called the Forest of Lucia, in the dominions of the King of England as Duke of Lunenberg. This variety is said to be constant or permanent, and in size and all other particulars, except colour, to resemble the common kind.

Mr. Pennant informs us that the Roebuck was formerly very common in Wales, in the north of England, and in Scotland, but that it no longer exists in any part of Britain, except in the Scottish highlands. They first occur in the woods on the south side of *Loch Rannoch*, in Perthshire, and the last that are found are in the woods of *Langwal*, on the southern borders of *Cathneſs;* but they are most numerous in the beautiful forests of *Invercauld*, in the midst of the *Grampian* hills. They are unknown in *Ireland*.

The common or general measure of the Roe is three feet nine inches from nose to tail; the height before, two feet three inches; but behind two feet seven inches, and the tail is about one inch long: the horns are about six or eight inches long, and are strong, upright, rugged, and trifurcated: the general colour of the animal is reddish brown, more or less deep in different individuals, and the rump is white. It is an inhabitant of most parts of Europe, as far as Norway; it also occurs in some parts of Asia, but is not to be found in Africa. Whether it be a native of America seems somewhat doubtful, though

some species nearly allied to it are found in that continent.

RIB-FACED DEER.

Cervus Muntjac. *C. cornibus teretibus pilosis retroversis trifurcis, apice superiore uncinato. Lin. Syst. Nat. Gmel. p.* 180.
Deer with trifurcated horns rising from a cylindric hairy base, and with the upper fork hooked.
Le Chevreuil des Indes. *Daff. Suppl. 6. p.* 195. *pl.* 26.
Rib-faced Deer. *Pennant Quadr. 1. p.* 119.

THIS species is a native of Java and Ceylon, and is somewhat smaller than the common Roebuck, and of a thick form, like the Porcine Deer. The horns are trifurcated, and the upper fork is hooked: they are placed on a bony process, like a pedestal, elevated three inches from the skull, and covered with hair; but what seems principally to distinguish this animal is the appearance of three longitudinal subcutaneous ribs extending from the horns to the eyes. From each side of the upper jaw hangs a tusk, so that this species differs, in that respect, from most of the genus. It was first described by Mr. Pennant, who informs us that it is called in the Malaye tongue by the name of *Kidang*, and by the Javans, *Munt-Jak*.

Mr. Pennant also adds, that the pedestals or pillars on which the horns stand, grow thicker as the animal advances in age, and the margin swells out all round; so that if the horns are forced off

the pedestals, the surface of the last has the appearance of a rose *.

GREY DEER.

Cervus Guineensis. *C. griseus, subtus nigricans. Lin. Syst. Nat. p. 94. Mus. Ad. Fr. 1. p. 12.*
Grey Deer, blackish beneath.
Grey Deer. *Pennant Quadr. 1. p. 181.*

This obscure species is described by Linnæus, in his work entitled *Museum Adolphi Friderici*; but, as the horns were wanting in the specimen described, it remains doubtful whether the animal should most properly be considered as a *Deer*, *Musk*, or female *Antelope*.

Its size is that of a Cat: the colour grey, with a line of black between the ears, a large spot of black above the eyes, and on each side of the throat a line of black, pointing downwards: the middle of the breast black; the fore legs and sides of the belly, as far as the hams, marked with black; the ears rather long; the under side of the tail black. It is said to be a native of Guinea.

* In Mr. Allamand's description of this species, in the sixth supplemental volume of Buffon, we are informed that its colour is a greyish brown, paler beneath; that the breast and insides of the thighs are whitish, and that the tongue is extremely long, so that the animal can extend it even beyond the eyes.

GIRAFFE.

Sec. Jany 1. London Published by G. Kearsley Fleet Street

CAMELOPARDALIS. CAMELOPARDI.

Generic Character.

Cornua pelle setosa tecta, apice fasciculo pilorum terminata.	*Horns* permanent, bony, covered with a bristly skin.
Dentes Primores inferiores octo, spatulati, extimo externe profunde bilobo.	*Front-teeth* in the lower jaw eight; the exterior one on each side deeply bilobate.

GIRAFFE.

Camelopardalis Giraffa. *C. albida, maculis subquadratis fusco-ferrugineis, cornibus sestosis apice truncatis.*
Whitish Camelopardi, with squarish ferruginous-brown spots, and bristly horns, truncated at the tip.
Cervus Camelopardalis. *Lin. Syst. Nat. p.* 92.
Camelopardalis Giraffa. *Lin. Syst. Nat. Gmel. p.* 181.
Camelopardalis. *Gesn. Quadr. p.* 160. *Aldr. bisulc. p.* 927.
Camelus Indicus. *Jonst. Quadr. t.* 40.
Gyraffa. *Bellon. obs. p.* 118. *f. p.* 119.
Giraffa. *Nieremb. Klein. Briss. &c.*
Giraffe. *Buff.* 13. *p.* 1. *and Suppl.* 3. *p.* 320. *pl.* 64. *and Suppl.* 7. *p.* 345. *pl.* 81.
Camelopard Giraffe. *Pennant Quadr.* 1. *p.* 65. *pl.* 11.

IF height alone constituted precedency among quadrupeds, the Giraffe, as Mons. Vaillant, one of its latest and most accurate describers, has well observed, would undoubtedly claim the first rank;

measuring, when full grown, near seventeen feet from the top of the head to the fore feet. The female, however, is lower than the male, and the measure above-mentioned must be understood to relate to the animal when arrived at the utmost limits of its tallest growth; the generality of those described by travellers not exceeding fifteen or sixteen feet. Notwithstanding the unusual proportions of this animal, its general form is in the highest degree elegant and picturesque; the head being small, the aspect mild, the neck extremely long and tapering; the fore-parts much higher than the hinder, and the disposition of the colours singular and pleasing. At first view, the fore-legs seem nearly twice the length of the hind; but this difference, on accurate examination, appears to result chiefly from the extraordinary height of the shoulders, compared with that of the thighs: accordingly, among the old writers who have described this animal, Petrus Gyllius* perhaps approaches nearest to the truth, when he affirms, that all the legs, or tibiæ, of the Camelopardi are of nearly equal length, but that the fore-thighs (femora anteriora) are so long in comparison with the hind, that the back appears inclined like the roof a house.

The horns of the Camelopardi differ in texture from those of all other horned quadrupeds; forming, as it were, a part of the skull, and consisting of a porous bony substance covered externally with

* Hist. Animal. chap. 9.

short coarse bristly hair: they terminate abruptly, in a flattish or slightly convex head, but little wider than the other part of the horn, and edged with stiff bristles all round the outline. On the middle of the forehead rises a considerable protuberance, owing to an elevation or bony rising on that part of the skull. From the head to the middle of the back runs a short stiffish mane. The tail is of moderate length, and is of a cylindrical form, gradually tapering towards the end, and terminating in a tuft of long hair. The hoofs are moderately large, and black. The fore part of the body is very thick and muscular, and the hind part thin and meagre. The ground-colour of the animal is whitish, variegated on all parts with numerous, moderately large, and somewhat squarish spots, which in the male are brown, and in the female ferruginous. In the younger animals they are sometimes of a bright reddish-yellow. These marks or spots are of a somewhat less regular shape on the sides than on the neck and shoulders.

The Camelopardi is a native of Ethiopia, and some other parts of Africa*, where it is chiefly found in forests, living on herbage of various kinds, but principally on the foliage of trees, and particularly on some species of Mimosa. When grazing on the surface of the ground, it is observed to spread its fore-legs very considerably, in order to enable it to reach the ground with

* It is also said to occur in some parts of Asia.

greater facility. It is an animal of a mild and harmless disposition, and when attacked, endeavours merely to save itself by flight; running, according to Mons. Vaillant, with great swiftness, though in a somewhat peculiar and awkward style, on account of the length of its neck and breadth of its fore-parts compared with the hind. Mons. Vaillant, informs us that he chased one on full speed on horseback, but the animal, on turning a small hill, was soon out of sight: the dogs, however, came up with him, and he was obliged to stop and defend himself, which he endeavoured to do by kicking in a forcible manner; and M. Vaillant was so fortunate as to kill the animal at a single shot.

The male and female Camelopardi resemble each other when young; but as the animal advances in age, the spots on the male become dark-brown, while those of the female continue of a ferruginous cast. In both, however, some occasional differences of shade take place, and the female, when very old, is said to acquire the dusky shades of the male. The female has also a less conspicuous tubercle on the forehead, and has four teats, as in a cow. According to Mons. Vaillant, the number of teeth in the Camelopardi is as follows, viz. six grinders on each side, both above and below: no front teeth in the upper jaw, but eight in the lower. He adds, that the head is beautiful; the mouth small; the eyes large and animated. The flesh is said to be excellent food, and the marrow white and firm.

HEAD OF GIRAFFE.

Heath Sculp.

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The general pace of the Camelopardi, on being pursued, is a very brisk trot*; so rapid, that a horse cannot without difficulty overtake it.

These animals are sometimes seen in small groupes, to the number of six or seven together, and when disturbed run off with great celerity. When seen in front, at some little distance, the animal might be mistaken for a decayed tree, and thus be easily passed by without particular notice.

The Camelopardi was known to the ancient Romans, and was first exhibited, according to Pliny, in the Circæan games by Cæsar the Dictator. It was afterwards more frequently introduced, and we are told, that in the time of the Emperor Gordian no less than ten were exhibited at once. Aurelian also exhibited it among other remarkable animals in his triumph on the conquest of Palmyra. It is represented, among other rare animals, on the Prænestine pavement, made by the direction of Sylla, and is expressed both in its grazing and brousing attitudes. In later times it appears to have been brought into Europe about the year 1559, when the Sultan of Babylon is said to have sent one as a present to Fridericus Œnobarbus, Emperor of Germany. Another was sent by the King or Dey of Tunis to Laurentius de Medicis, in whose possession it was seen by Politian. These latter anecdotes are on the authority of Gesner and Aldrovandus.

* Some writers insist that it is a gallop rather than a trot.

ANTILOPE. ANTELOPE.

Generic Character.

Cornua concava, sursum versa, teretia, annulata vel spiralia, persistentia.	*Horns* hollow, seated on a bony core, growing upwards, annulated or wreathed, permanent.
Dentes Primores inferiores octo.	*Front-teeth* in the lower jaw eight.
Laniarii nulli.	*Canine-teeth* none.

THE Antelopes constitute a very numerous race, of which the species have but lately been clearly ascertained: few, except the common African Antelope appear to have been very distinctly known to the more ancient naturalists; and even in the twelfth edition of the Systema Naturæ of Linnæus not more than six are mentioned: these Linnæus included under the genus Capra or Goat; but later observations have conspired to prove, that in reality the Antelopes ought to constitute a distinct genus; having characters sufficiently appropriate. Their general habits or manners are extremely well described by Mr. Pennant, who

has prefixed them to his particular description of the species.

"They inhabit (says this author), two or three species excepted, the hottest part of the globe; or, at least, those parts of the temperate zone that lie so near the tropics as to form a doubtful climate. None, therefore, except the *Saiga* and the *Chamois*, are to be met with in Europe; and notwithstanding the warmth of South America is suited to their nature, not a single species has yet been discovered in any part of the new world. Their proper climates seem, therefore, to be those of Asia and Africa, where the species are very numerous.

"As there appears a general agreement in the nature of the species that form this great genus, it will prevent needless repetition to observe, that the Antelopes are animals generally of a most elegant and active make; of a restless and timid disposition; extremely watchful; of great vivacity; remarkably swift and agile, and most of their boundings so light, so elastic, as to strike the spectator with astonishment. What is very singular is that they will stop in the midst of their course, gaze for a moment at their pursuers, and then resume their flight.

"As the chace of these animals is a favourite amusement with the eastern nations, from that may be collected proofs of the rapid speed of the Antelope tribe. The greyhound, the fleetest of dogs, is usually unequal in the course, and the sportsman is obliged to call in the aid of the

Falcon, trained for the purpose, to seize on the animal, and impede its motions, in order to give the dogs an opportunity of overtaking it. In India and Persia a species of Leopard is made use of in the chace: this is an animal that takes its prey not by swiftness of foot, but by the greatness of its springs, by motions similar to those of the Antelope; but, should the Leopard fail in its first essay, the game escapes.

"The fleetness of the Antelope was proverbial in the country it inhabited, even in the earliest times: the speed of *Asahel* (2 Sam. ii. 18.) is beautifully compared to that of the *Tzebi*, and the *Gadites* were said to be as swift as the *Antelopes** upon the mountains. The sacred writers took their similies from such objects as were before the eyes of the people to whom they addressed themselves. There is another instance drawn from the same subject: the disciple raised to life at *Joppa* was supposed to have been called *Tabitha*, i. e. *Dorcas*, or the *Antelope*, from the beauty of her eyes; and to this day one of the highest compliments that can be paid to female beauty in the eastern regions is *Aine el Czazel*, 'You have the eyes of an Antelope.'

"Some species of Antelopes form herds of two or three thousands, while others keep in troops of five or six. They generally reside in hilly countries, though some inhabit plains: they often brouse like the goat, and feed on the tender

* Improperly translated *Roes*.

shoots of trees, which gives their flesh an excellent flavour. This is to be understood of those which are taken in the chace; for those which are fattened in houses are far less delicious. The flesh of some species is said to taste of musk, which perhaps depends on the qualities of the plants they feed upon.

"This preface (says Mr. Pennant) was thought necessary, to point out the difference in nature between this and the Goat kind, with which most systematic writers have classed the Antelopes: but the Antelope forms an intermediate genus, a link between the Goat and the Deer; agreeing with the former in the texture of the horns, which have a core in them, and are never cast; and with the latter in elegance of form and swiftness."

To the above introduction it may be added, that in detailing the particular history of the Antelopes, very little more can be done than copying the descriptions already given by Dr. Pallas, Mr. Pennant, Mr. Allamand, &c. I must, however, acknowledge myself not entirely convinced that every animal described in the following enumeration is in reality a distinct species.

Antelopes with strait or nearly strait Horns.

EGYPTIAN ANTELOPE.

Antilope Oryx. *A. cornibus rectissimis subulatis argute rugosis, corpore griseo, striga dorsali nigricante, pilo postico contrario. Lin. Syst. Nat. Gmel. p.* 189.

Grey Antelope, with black and white face, dusky dorsal stripe, and very long, strait, tapering, sharply-annulated horns.

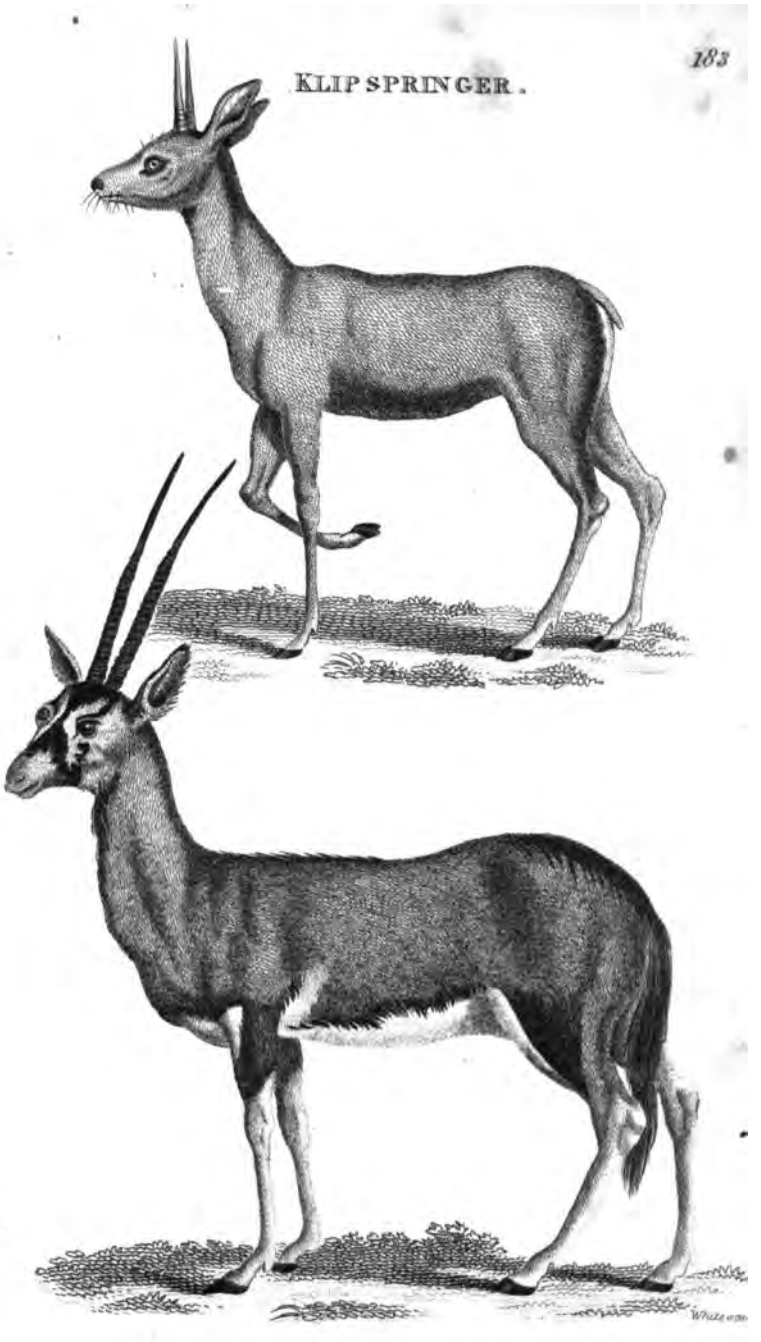
Capra Gazella. *C. cornibus teretibus rectissimis longissimis, basi annulatis. Lin. Syst. Nat. p.* 96.

Le Pasan. *Buff. 12. p.* 212. *pl.* 33. *f.* 3. *and Suppl.* 6. *p.* 155. *pl.* 17.

Ægyptian Antelope. *Pennant Quadr.* 1. *p.* 75.

The Egyptian Antelope, or Pasan, is more easily distinguished than many others in this extensive race; the horns affording a character perfectly clear and constant: they are almost entirely strait, nearly three feet in length, very slender in proportion to their length, annulated at the lower part or towards the base, the remainder smooth, and gradually tapering to the point. The size of the animal is somewhat superior to that of a deer. Its natural history has been of late years greatly elucidated by the observations of Dr. Forster and Mr. Klockner, whose accounts have been copied by the Count de Buffon in his sixth supplemental volume, as well as by Mr. Pennant in his History of Quadrupeds. From these accounts it appears that the Pasan is nearly four feet high, measured from the top of the shoulders to the ground; that it is found about the Cape of Good

KLIPSPRINGER.



EGYPTIAN ANTELOPE.

Hope, as well as in other parts of Africa; that in the female the horns are smaller than in the male, and that the animals do not associate in troops or herds, but only in pairs. The head is white, marked in a singular manner with black, which latter colour forms a kind of triangular patch on the top of the forehead, the point running down between the eyes, and then dilating into a similarly formed patch in an opposite direction, situated on the upper part of the nose, and these two patches are united on each side by a streak or band of black running from the root of each horn, through the eyes, down the cheeks: the end of the nose is milk white. It is observable, says Mr. Klockner, that there are but very few instances in quadrupeds of a black or other coloured band running across the eyes and cheeks; the Badger and the Coati-Mondi furnishing almost the only examples *. The neck and upper part of the body are of a pale bluish grey, with a slight tinge of blossom-colour; the belly and insides of the limbs are white, but along the lower part of the sides runs a dark or blackish chesnut-coloured stripe, separating the colours of the upper and lower parts: a dark stripe runs along the back to the tail, and a large patch of similar colour is seated on the upper part of the outsides both of the fore and hind legs, and is continued down the front of each leg in form of a stripe, which again

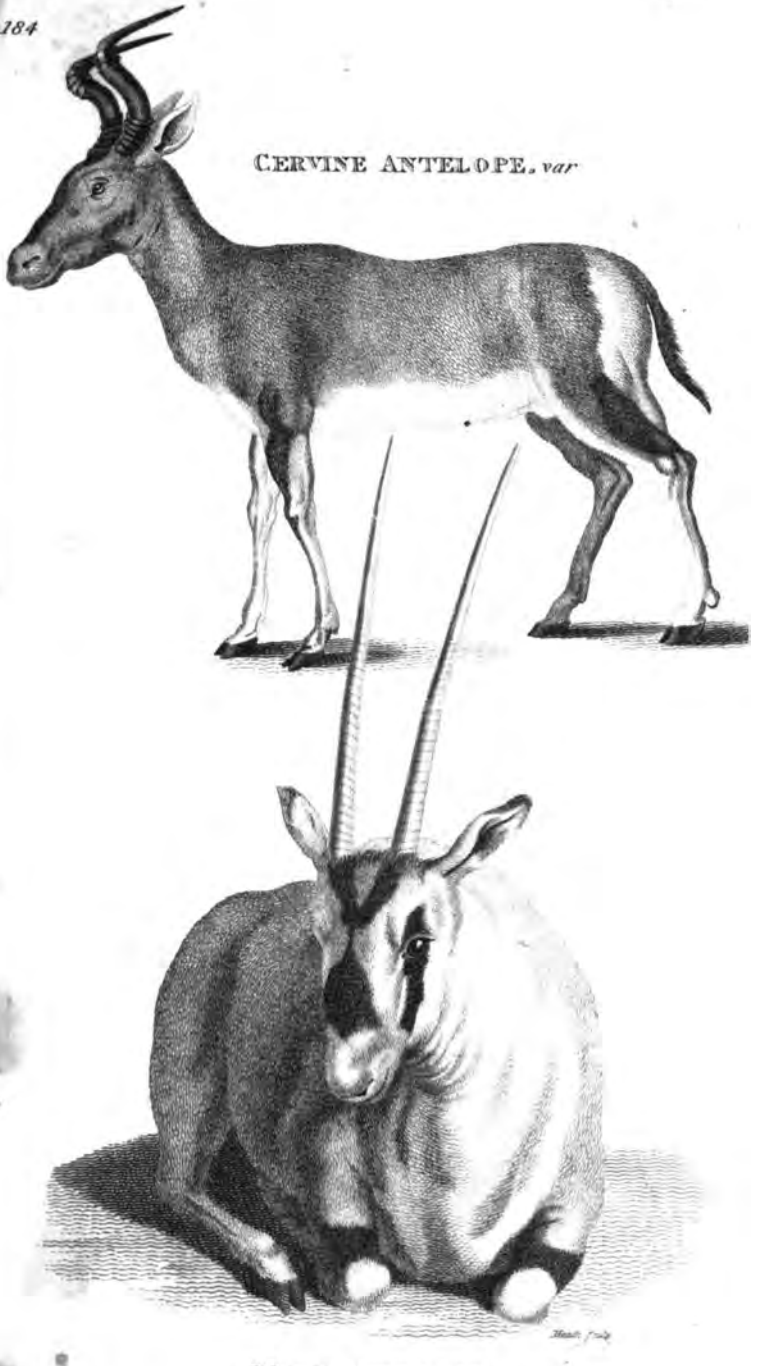
* The *Antilope Leucoryx*, or White Antelope, the *Myoxus Dryas*, or Wood Dormouse, and some others, might be added to the list.

dilates into a patch or spot at some distance above the feet: the tail is brown, covered with slightly flowing black hairs resembling in some degree those of a horse's tail: the length of the tail from base to tip is about two feet and a half: the hoofs* and horns are black: the hair under the throat, along the ridge of the back, and over the shoulders, is longer and rougher than in other parts.

This species is said to be found in Egypt, Arabia, about the Cape of Good Hope, &c. It is also supposed to occur in India. It is considered by the Africans as a very dangerous animal, the form and sharpness of the horns rendering it a very formidable adversary; and, like others of this genus, when it makes its attack, it bends down the head, and rushes forward with great violence, thus presenting the points of its sharp and long horns immediately forwards. The Hottentots, when they have wounded it, are said to be careful of approaching it till they are well assured that it is totally deprived of life.

The length of a skin of this animal, measured by Mr. Pennant, was above six feet six inches; by which we must understand from the tip of the nose to the end of the tail.

* The shape of the feet differs in some degree from that of other Antelopes; each segment or division of the hoofs being of the figure of a very long isosceles triangle; whereas in most other cloven-footed quadrupeds it is nearly of the form of an equilateral triangle. This configuration of the feet, it is pretended, gives the animal a greater degree of strength or security of foot than most others.



CERVINE ANTELOPE. *var*

WHITE ANTELOPE.

Though this species has but lately been well described, yet its horns, like those of several others, have been long since known to naturalists, and seem to have been pretty well figured in Aldrovandus.

WHITE ANTELOPE.

Antilope Leucoryx. *A. cornibus subulatis rectis convexe annulatis, corpore lacteo. Lin. Syst. Nat. Gmel. p.* 190.

Milk-white Antelope, with very long, nearly strait, tapering slightly annulated horns.

Leucoryx Antelope. *Pennant Quadr.* 1. *p.* 76.

It has already been observed in the introduction to this genus, that some few species are of a far less elegant and light form than the rest: of this the Leucoryx or White Antelope seems the most remarkable instance; the body being thick and heavy, and the head very large. In the disposition of colours on the face there is a remarkable approach to those of the Pasan or Egyptian Antelope, before described; and had the figure alone of this animal been given, without its description, one would be almost tempted to suppose it a bad representation of the former species. The Leucoryx, however, is entirely milk white, except the markings on the face and limbs, as shewn in the engraving: these are described as of a red colour, and not black, as in the Pasan: the nose is thick and broad, like that of a cow: the ears somewhat slouching; the body heavy; the limbs

somewhat less so: the horns very long, very slightly incurvated, slender, and annulated about half way upwards; their colour is black, and they are sharp-pointed: the hoofs are black, and the tail somewhat flocky, or terminated by loose hairs. The size of this species is compared by Mr. Pennant to that of a Welch runt. It is an inhabitant of an island called *Gow Bahrein* in the gulf of *Bassora*. Mr. Pennant's figure, which is here represented, was from a drawing preserved in the British Museum, said to be taken from the life in the year 1722, by order of Sir John Lock, at that time agent to the East-India company at *Ispahan*. They were preserved as rarities by *Shah Sultahn Houssein*, Emperor of Persia, in his park at *Cassar*, about eight leagues from the capital.

ALGAZEL.

Antilope Gazella. *A. cornibus subulatis subarcuatis rugosis. Lin. Syst. Nat. Gmel. p.* 190.
Bay Antelope, with slightly bowed, tapering, wrinkled horns.
Capra bezoartica. *C. cornibus teretibus arcuatis totis annulatis, gula barbata. Lin. Syst. Nat. p.* 96.
Hircus Bezoardicus. *Aldr. bisulc. p.* 756.
Algazel. *Buff.* 12. *p.* 211. *t.* 33. *f.* 1, 2.
Algazel Antelope. *Pennant Quadr.* 1. *p.* 77.

THIS species is a native of India and Persia, and is also found in many parts of Africa. It is about the size of a Fallow Deer, and is of a reddish or bright bay colour, with a white breast:

the horns are very long, thin, and black, nearly upright, bending inwards at their extremities; they are nearly smooth; the rings with which they are marked being very slight, except near the base, where they are somewhat more distinct: they are almost three feet in length.

In celerity and general manners this species agrees with many others of its tribe, and is said to be easily tamed.

As this Antelope is also supposed to afford a *bezoar* of the best and finest kind, it may not be improper here to give some general account of the celebrated concretes thus named, and which were once of such high reputation in the materia medica, on account of various virtues which the superstition of former ages seems to have bestowed upon them.

Bezoars are smooth, oval, or roundish, and generally slightly flattened, solid concretions, which are formed in the stomachs of several quadrupeds; chiefly of the order *Pecora* or Ruminants. Those found in the eastern regions have always been considered as far superior to any others. The genuine oriental bezoar of the shops is commonly about the size of a kidney-bean, but often far larger; of an extremely smooth surface, and of a dark olive-colour. When broken, it is found to be composed of a number of concentric coats or lamellæ, each almost equally smooth with the exterior: in the middle is either a cavity, or else some powdery or fibrous matter, or some small piece of a vegetable stalk, leaf, &c. which seems

to have operated as a nucleus, on which the bezoar inclosing it has been gradually formed. The bezoar has, in general, no particular taste or smell *, and when reduced to powder, retains its usual colour.

It was formerly considered as a most powerful alexipharmic, insomuch that other substances supposed to be possessed of alexipharmic virtues have been often denominated *Bezoardics*. It is allowed, however, by modern physicians, that its virtues were imaginary, and its effects entirely insignificant, and it has been accordingly discarded from rational practice. It seems to have been first introduced into physic by the Arabians.

It is in Aldrovandus that we must look for a full enumeration of all the virtues of Bezoar. He informs us that it is a sovereign remedy against the bites of poisonous animals; that it cures melancholy, pestilential fevers, faintings, vertigo, epilepsy, and worms; that it dissolves the stone, &c. &c. He relates a case from Monardes, in which a certain licentiate, who had swallowed something poisonous, and was in consequence afflicted with most grievous symptoms, and appeared to be in danger of speedy death, was so wonderfully relieved by taking only three grains of *Oriental Bezoar*, that he was freed from all his dangerous symptoms in less time than the *Apostles Creed* could be thrice repeated! passed a very to-

* In the eastern regions, however, it is said to be sometimes found of a highly aromatic taste and smell.

STRIPED ANTELOPE.

INDIAN

ANTELOPE.

lerable night, and the next morning was restored to his usual health!!!

The *Occidental* Bezoar is said to be found in certain species of deer, &c. in America. It is much larger than the Oriental, having been sometimes seen of the size of a hen's egg, and even far larger. It is grey or brown, rather than olive-coloured, and of a looser texture when broken. Bezoars of several other kinds are occasionally found in the stomachs of many animals, and even, as it is said, of Monkeys.

INDIAN ANTELOPE.

Antilope Oreas. *A. cornibus subulatis rectis carinato-contortis, corpore griseo. Lin. Syst. Nat. Gmel. p.* 190.

Slate-coloured Antelope, with rufous head, black mane on the neck and breast, and strait, tapering, wreathed horns.

Antilope Oryx. *Pall. Misc. Zool. p.* 9. *spic. zool.* 1. *p.* 15.

Le Coudous. *Buff.* 12. *p.* 357. *t.* 47. Le Canna. *Suppl.* 6. *p.* 116. *pl.* 12.

Indian Antelope. *Pennant Quadr.* 1. *p.* 78.

The Oreas or Indian Antelope is one of the largest of the whole genus, and is found both in India and Africa, living in numerous herds: it is not much inferior in size to a cow, and is of a blueish grey or slate-colour, with the head of a bright bay: along the upper part of the neck, and a part of the back, runs a coarse black mane: on the breast is a very large pendent tuft of hair, as in the Nilgau: the tail is also tipped with long

black hairs: the horns are extremely stout, strait, sharp-pointed, and marked with two very thick prominent wreaths or spires *: they are sometimes above two feet in length, and are of a blackish colour. The Oreas is said to be an animal of great strength, and it has been thought not impracticable to train it to agricultural purposes, in the same manner as the horse or ox. It is said sometimes to grow extremely fat, so as to be easily run down. The flesh is reckoned extremely good; and the skin is very strong and serviceable for the purpose of leather. The female is said to be horned like the male.

OUREBI.

Antilope Ourebi. *A. fusco-ferruginea, pectore abdomine clunibusque albis, cornibus rectis.*

Ferruginous-brown Antelope, with the breast, belly, hind part of the thighs, and insides of the limbs, white, and small strait horns.

Ourebi. *Allam. Suppl. Buff.* 5. *p.* 33. *pl.* 12.

Ourebi Antelope. *Pennant Quadr.* 1. *p.* 79.

This, which seems much allied to the Ritbock or A. arundinacea, is thus described by Mr. Pennant, from Mr. Allamand's Supplement to the Count de Buffon's History of Quadrupeds:

* These are scarcely expressed with sufficient strength and fullness in the annexed plate.

" Antelope with small strait horns, small head, long neck, long pointed ears. Colour above a deep tawny, brightening towards the sides, neck, head, and legs; lower part of breast, belly, buttocks, and inside of thighs, white. Tail only three inches long, and black. Hair on the body short; under the chest long and whitish; on each knee a tuft of hair: the females are hornless: length three feet nine inches to the tail. Inhabits the country very remote from the Cape of Good Hope. Seldom more than two are seen together: they generally haunt the neighbourhood of fountains surrounded with reeds. Are excellent venison."

I am not without some suspicion that this may be only a variety of the Ritbock, described among the Antelopes with curved horns.

KLIPSPRINGER.

Antilope Oreotragus. *A. cornibus rectissimis subulatis, basi parum rugosis, capite rufo, corpore ex flavo-virescente subtus ex albo cinereo, cauda brevissima. Lin. Syst. Nat. Gmel. p.* 189.
Yellowish-tawny Antelope, whitish beneath, with very strait upright tapering horns, slightly wrinkled at their base.
Antilope Oreotragus. *Schreb. Quadr. t.* 259.
Le Klippspringer, ou Sauteur des Rochers. *Buff. Suppl. 6. pl.* 22.
Klipspringer Antelope. *Pennant Quadr.* 1. *p.* 80.

THIS species is to be numbered among the late acquisitions in natural history; having been first described by Dr. Forster.

It is a native of Africa, and is known to the Dutch residents at the Cape of Good Hope by the name of Klipspringer. It inhabits the highest and most inaccessible parts of the rocky mountains beyond the Cape; leaping with surprising agility, from crag to crag, over the most tremendous abysses. Its size is that of a Roebuck, and its colour pale yellowish tawny, accompanied with a very slight greenish tinge: the horns are quite strait, slender, upright, and sharp-pointed: they are slightly wrinkled at the base, and are about five inches in length. The female is said to be destitute of horns, and has the head marked by some black or dusky streaks: the tail is extremely short, so as to be scarce visible. The flesh of the Klipspringer is much esteemed as an article of food. The Count de Buffon, in his sixth supplemental volume, seems to consider this species as a variety of the Nagor or Red Antelope.

HARNESSED ANTELOPE.

Antilope Scripta. *A. cornibus subulatis rectis contortis, corporis strigis, albis decussatis. Lin. Syst. Nat. Gmel. p.* 191.
Chesnut-coloured Antelope, with white crossed stripes on the sides, and strait tapering wreathed horns.
Le Guib. *Buff.* 12. *p.* 305. 327. *pl.* 40, 41. *f.* 1.
Harnessed Antelope. *Pennant Quadr.* 1. *p.* 81.

THIS, which is numbered among the smaller Antelopes, is of an elegant tawny chesnut-colour both above and below; each side of the body

HARNESSED

ANTELOPE.

being marked by two longitudinal bands of white, crossed, at nearly equal distances, by two transverse ones: the rump is also marked on each side by two white descending stripes; and the thighs are variegated with seven or eight roundish white spots; the cheeks have a white spot or patch beneath the eye, and the under part of the throat is of the same colour: the tail measures ten inches, and is covered with long and rough hair: the horns point backwards, and are nine inches long, of a black colour, and marked by two spiral ribs or wreaths. This elegant species is a native of Senegal, living in woods, in large herds. It is said to be known by the Dutch at the Cape under the name of Bonte Bock, or Spotted Goat. It seems to have been first mentioned by Kolben, in his account of the Cape of Good Hope; but was first distinctly described, as well as elegantly figured in the Count de Buffon's History of Quadrupeds, under the title of *Guib*. The description was drawn up from a skin, brought over in good preservation by Mons. Adanson from Senegal, and which measured about four feet and a half from nose to tail, and about two from the hind feet to the top of the back. The hair was very short, glossy, and close set.

Antilope Grimmia. *A. cornibus conicis compressis rectissimis rugoso-striatis, hinc detritis, fossa suboculari atra. Lin. Syst. Nat. Gmel. p.* 191. *Pall. Misc. Zool. p.* 8. *n.* 14. *Spic. Zool.* 1. *p.* 15. 12. *p.* 18. *n.* 18.

Yellowish-bay Antelope, with short strait horns, and black bristly tuft on the forehead.

Moschus Grimmia. *M. capite fasciculo tophoso. Lin. Syst. Nat. p.* 92.

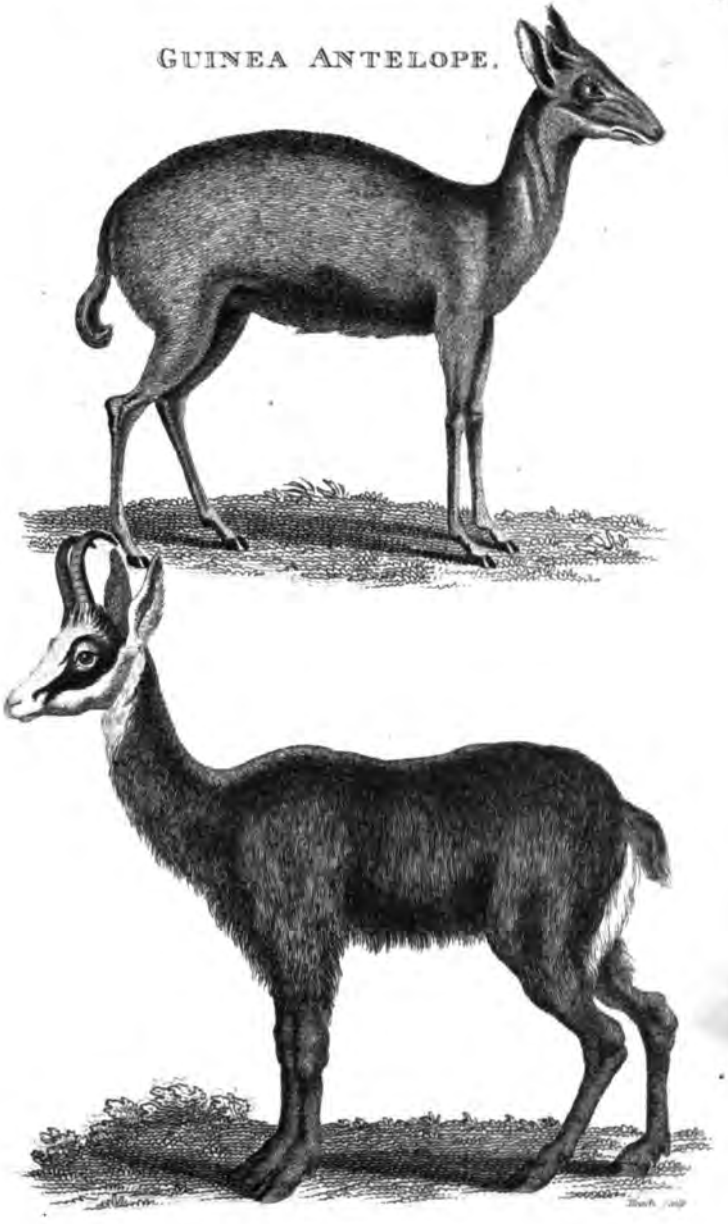
Capra sylvestris Africana. *Grimm. Misc. Nat. Cur. dec.* 2. *a.* 4. *p.* 131. *f.* 13.

Guinea Antelope. *Pennant Quadr.* 1. *p.* 81.

THIS species is named in memory of its first describer, Dr. Grimmius, to whom we owe an ample and accurate account both of its form and manners. By Linnæus it was arranged under the genus *Moschus*, the specimen described by Dr. Grimmius having been a female, and destitute of horns.

The Guinea Antelope, or Grimm, is considerably smaller than a Roebuck, and is of an elegant and lively aspect. Its colour on all parts, except the throat, abdomen, and insides of the thighs, where it is pale cinereous, is a beautiful light yellowish or tawny brown: like most other quadrupeds, however, it differs as to the intensity of its colour; and the specimen described by Mr. Vosmaer, at the Hague, had a black stripe on the forehead, and a blackish or dusky cast on the upper parts of the body. The horns are very

GUINEA ANTELOPE.



CHAMOIS.

1801. Jan.y 1 London Publish'd by G. Kearsley. Fleet Street.

short *, thick at the base, very slightly annulated to a small distance beyond, and are sharp-pointed, smooth, and black: the limbs are slender; the tail rather short, blackish above, white below, and is somewhat flocky or loose-haired; but what principally distinguishes this species is an upright pointed tuft of strong black hairs rising from the top of the forehead, between the horns, to the height of about two inches and a half: the sinus lachrymalis, as in many other antelopes, is extremely conspicuous.

The Grimm is found in several parts of Africa, extending, according to Dr. Pallas and Mr. Pennant, from Guinea to the Cape of Good Hope; residing principally in places overgrown with brushwood, into which it may retire on the approach of danger. In the Leverian Museum is a very beautiful specimen of this animal, which is elegantly figured in the Museum Leverianum, and is introduced into the present work.

* Dr. Gmelin, in his edition of the Systema Naturæ, speaks of the horns as being eighteen inches long; probably mistaking Mr. Pennant's expression, "*height* 18 *inches*," by which he means the height of the animal itself.

PYGMY ANTELOPE.

Antilope Pygmæa. *A. cornibus brevibus convexis basi rugosis. Lin. Syst. Nat. Gmel. p.* 191.

Bay Antelope, with strait short convex horns, wrinkled at the base.

Cervus juvencus perpusillus. *Seb. Mus.* 1. *p.* 70. *t.* 43. *f.* 3.

Le Chevrotain de Guineé. *Buff.* 12. *p.* 315. *pl.* 43. *f.* 2. *(the horns.)*

Royal Antelope. *Pennant Quadr.* 1. *p.* 82.

This beautiful and diminutive species appears to have been frequently confounded with the *Moschus pygmæus*, or Pygmy Musk, which it resembles in size as well as in colour and manners. It is a native of the hottest parts of Africa, and is easily tamed, but is of so tender a nature as not to admit of being brought in a living state into Europe. So remarkable are its powers of activity in its native regions, that it is said to be able to leap over a wall of twelve feet high. Its colour is a bright bay, paler beneath, and on the insides of the limbs; and its height not more than nine inches. The horns are strait, short, strong, sharp-pointed, smooth, and perfectly black. The legs are scarcely thicker than a quill, and have been used for similar purposes with those of the Moschus Pygmæus. The female is said to be hornless.

PYGMY ANTELOPE. *male & female.*

1803. Jan.y 1st. London. Published by G. Kearsley Fleet Street.

NILGHAU.

1801 Jan.y 1 London Publish'd by G. Kearsley, Fleet Street

With curved, bent, or twisted Horns.

NILGHAU.

Antilope Picta. *A. cornibus antrorsum incurvis, cervice colloque jubatis, cauda longa floccosa, pedibus albo nigroque annulatis. Lin. Syst. Nat. Gmel. p.* 184.

Slate-coloured Antelope, with the back of the neck and breast maned, the feet barred with black and white, and subtriangular tapering horns bending forwards.

Nyl-ghau. *Hunter. Phil. Trans. vol.* 61. *p.* 170. *pl.* 5.

Nil-Gaut. *Buff. Suppl.* 6. *p.* 101. *pl.* 10, 11.

White-footed Antelope. *Pennant Quadr.* 1. *p.* 83.

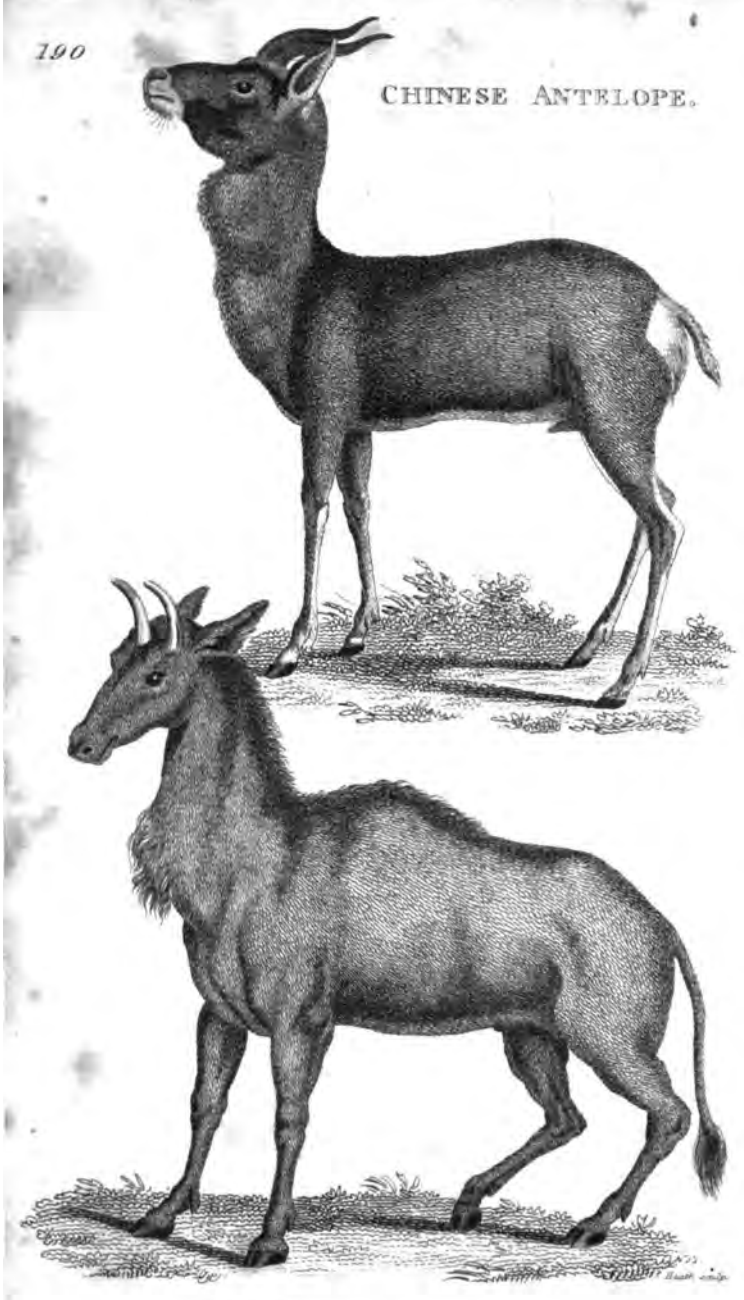
The Nilgau, or White-footed Antelope, is a large and beautiful species, known only within the space of a few years past. Its height, as given by Dr. William Hunter, in the Philosophical Transactions, is four feet one inch to the top of the shoulders, and its length, from the bottom of the neck to the base of the tail, four feet. The colour of the Nilgau is a fine dark grey or slate-colour, with a large spot of white beneath the throat, and two white bands or marks above each foot: the ears are large, white within, and edged with the same colour; and marked internally by two black stripes: along the top of the neck runs a slight mane of black hair, which is continued to some distance down the back; and on the breast is a much longer mane or hanging tuft of a similar colour: the tail is moderately long, and terminated by a tuft of black hair: the horns are short, pointed, smooth, triangular at their base,

distant from each other, bent very slightly forwards, and of a blackish colour. The female resembles the male in general appearance, but is considerably smaller, of a pale brown colour, and is destitute of horns: the mane, pectoral tuft, and ears, resemble those of the male, and the feet are marked above the hoofs by three transverse bars of black and two of white.

The Nilgau is a native of the interior parts of India. According to Mr. Pennant, it abounded, in the days of Aurengzebe, between Delli and Lahor, on the way to Cashmire, and was called Nyl-Gau, or the blue or grey bull. It was one of the objects of the chace with that mighty monarch during his journey: they were inclosed by his army of hunters within nets, which being drawn closer and closer, at length formed a small precinct, into which the King and his *Omrahs* and hunters entered, and killed the Nilgaus with arrows, spears, and musquets; and that sometimes in such numbers, that Aurengzebe used to send quarters as presents to all his great people.

The Nilgau has of late years been often imported into Europe, and has bred in England. In confinement it is generally pretty gentle, but is sometimes seized with fits of sudden caprice, when it will attack with great violence the objects of its displeasure. When the males fight, they drop on their knees at some distance from each other, and gradually advance in that attitude, and at length make a spring at each other with their heads bent low. This action, however, is

CHINESE ANTELOPE.



INDOSTAN ANTELOPE.

1801. Jan.y 1.st London Published by G. Kearsley Fleet Street.

or tufted with long hair: the breast is furnished with a kind of dewlap, or loose pendent skin, resembling that of a cow: the hind part of the animal is small in proportion to the fore: the limbs are slender, and the tail is nearly two feet in length, and terminated by a hairy tuft.

This highly singular animal is a native of India, and in its habits and manner of lying down is said to resemble a camel. The height of the specimen described by Dr. Parsons was thirteen feet to the top of the shoulders: the horns were seven inches long, bent slightly forwards, and the eyes were black and lively. Its colour was a light grey, with a dusky tinge on some parts: on the forehead was a black rhomboidal spot or patch: the lower part of the breast and under part of the tail white: its voice is said to be hoarse and croaking.

CERVINE ANTELOPE.

Antilope Bubalis. *A. cornibus crassis lyrato-contortis rugosis, apice directis, capite cauduque elongatis. Lin. Syst. Nat. Gmel. p.* 188.

Reddish-brown Antelope, with large elongated head, thick, strongly-wrinkled, lyrated * horns, and longish tail.

Buselaphus. *Gesn. Quadr.* 121.

Vache de Barbarie. *Mem. de l'Acad.* 1. *p.* 205.

Le Bubale. *Buff.* 12. *p.* 294. *pl.* 37, 38. *(the horns) and Suppl.* 6. *p.* 133. *pl.* 14.

Cervine Antelope. *Pennant Quadr.* 1. *p.* 102.

THIS species is said to be common in Barbary, and in all the northern parts of Africa. It is also found, though less frequently, in many other parts of that continent, and even extends as far as the Cape of Good Hope. It is supposed to have been the Bubalus of the ancients, instead of the common Buffalo, as sometimes erroneously imagined. In its general form it seems to partake of the stag and heifer, having a large head, like that of an ox; and a thick broad nose. The height of the animal, when measured to the top of the shoulders, is about four feet; the general colour a reddish brown, white about the rump, insides of the limbs, and lower part of the belly: the upper part of the fore legs is marked in front by a dusky patch; as is also the hind part of the thighs; and on the upper part of the back is a stripe

* Meaning such as when viewed in front bear a greater or less resemblance to the form of the ancient lyre.